

Responses to accountability pressure and support for learner performance improvement: A case study of one school.

A minor dissertation submitted in partial fulfilment of the requirements for the award of the degree of Master in Education

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DECLARATION

I, Tsepo Majake, hereby declare that this work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in this dissertation from the work, or works, of other people has been attributed, and has been cited or referenced.

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Abstract

This study examines how a township school responded to external pressure and support to improve grade 12 results, in general, and mathematics in particular.

The study is theoretically located within scholarship pertaining to forms and effects of accountability measures. The focus is on whether responses to such measures are substantive, i.e. directed towards the goal of general improvement of learning and teaching within the school, or non-substantive, i.e. directed towards compliance with external quantitatively framed measures as an end in itself.

The general methodological approach was a case study with ethnographic elements. Data collection strategies included interviews and observation.

In general, this study shows that the responses within the school to pressure and support to improve mathematics results were complex, uneven and layered. These external pressures did, often indirectly, contribute to improved grade 12 results. This was facilitated by a degree of internal coherence within leadership practices, i.e. effective and purposeful strategies aligned with substantive goals within the school. However, these pressures also arguably prompted undesirable pedagogic practices, especially at grade 9 level. Contextual difficulties in grade 9 undermine practices more at grade 9 level than at grade 12 level. The support offered was not generally congruent with demands.

Chapter 1: Introduction and background

For the past four years (2008 – 2011) there has been a steady improvement in learner performance as measured in the national external grade 12 examination. However, while the national grade 12 results improved during these four years, the mathematics and physical sciences results were declining. The national ministry of education has been concerned about the problem of weak learner performance in these gateway subjects. The focus has been on improving the grade 12 results while also improving learner performance in mathematics and science. A number of strategies were developed and tried by the national ministry to no avail until 2012, when the ministry came up with a strategy to improve the grade 12 pass rate and the quality of mathematics and physical sciences. The National Strategy for Mathematics, Science and Technology education focusses on four areas:

- (i) Improving the participation and performance of girl learners.
- (ii) Helping schools to improve learner subject choices.
- (iii) Ensuring correct placement of teachers.
- (iv) Focussing teacher development efforts on subject and pedagogical content knowledge. (Department of Basic Education 2012).

The national ministry's commitment to improving these results has been interpreted differently by school leaders and the responses vary from individual to individual.

Problem statement and methodological approach

The focus of this study is on how a school responded to external pressures and support in order to improve grade 12 passes in general and mathematics performance in particular. I have investigated the extent to which school leaders and other role players adopt non-substantive or substantive strategies in responding to improvement strategies and policies that are initiated by policy makers. I describe the improvement strategies in response to the school's increasing failure rate and to the decreasing number of learners passing mathematics as a grade 10 – 12 subject.

The study adopts a broadly ethnographic case study approach. This involves observation and informal interactions within the daily life of the school as well as more formal interviews over a period of two years. The school is located in the greater part of the Cape Town area.

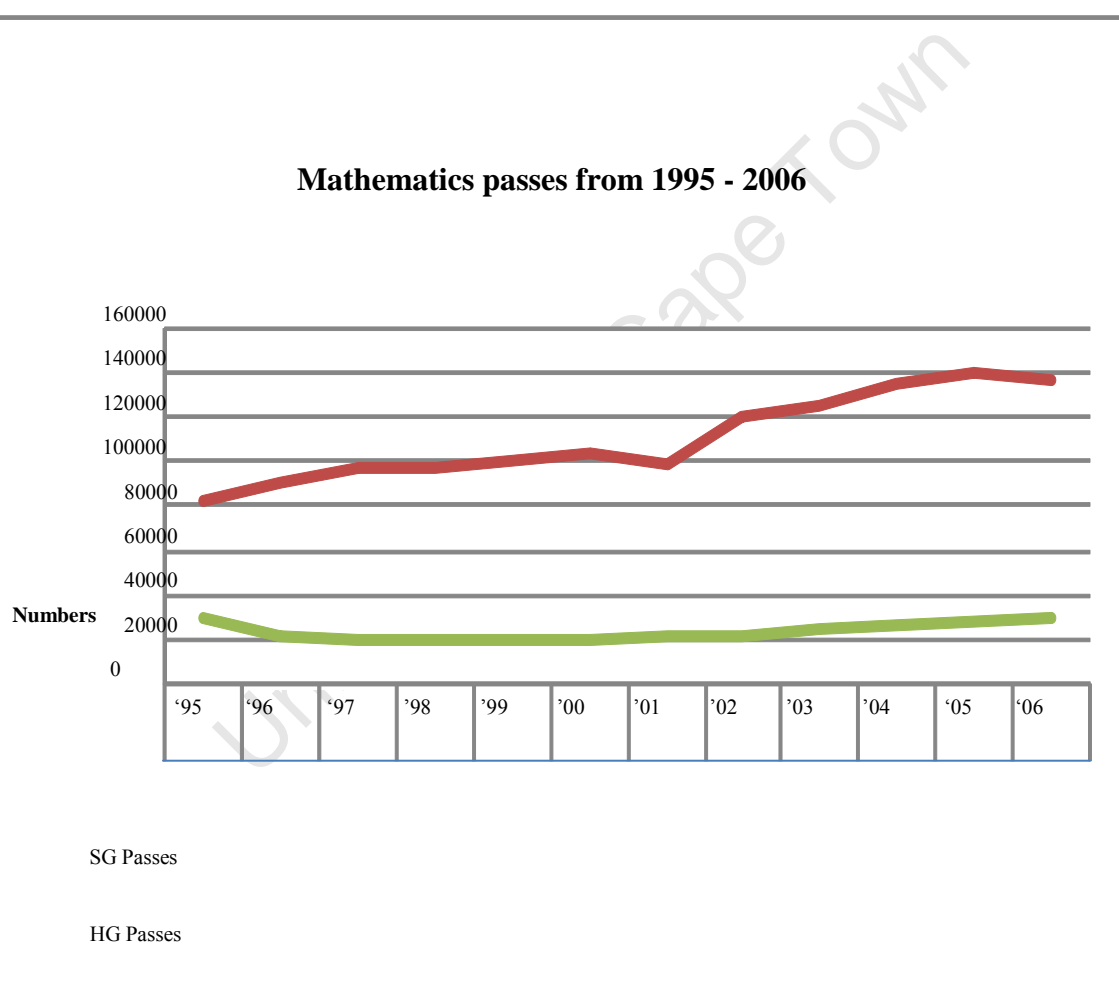
Context: The South African schooling system

In the South African context, the political transition to democracy meant that the education system had to be changed to fit the goals of the new dispensation (Christie 2003). Educational restructuring focussed on removing racial discrimination, up-skilling and increasing the capabilities of the global citizen while enabling the citizen to participate in the labour market. However, this transition occurred at a time when an international neo-liberal agenda had already shifted the provision of public services from a welfarist model to a marketised model. The new education policies were modelled on international practices and were sometimes difficult to implement in a different context. Strategies such as outcomes based education did not transform actual conditions at the grass-roots level and tended to require greater resources to implement than were available (Christie 2003). The rationale for the selection of outcomes-based approaches to education in South Africa included a management argument which stated that, to enable greater effectiveness and efficiency in schooling, it was necessary to increase accountability of teachers, schools and the system (Jansen 1995). This accountability was measured in terms of outcomes and these were measured in terms of the grade 12 results.

Since 1994 there has been a steady improvement in the grade 12 result (See table 1), however with fluctuating mathematics achievement (See Graph 1). This impacted negatively on the national skills agenda. The National Curriculum Statement (NCS) was introduced in South Africa in 1995 and in 2008 – 2011 there was a further curriculum change which resulted in the Revised National Curriculum Statement (RNCS). In spite of these shifts in the curriculum, there was little change in levels of learner attainment in mathematics. Instead, as the overall grade 12 pass rate increased, the mathematics pass rate decreased or fluctuated, as Table 1 and Graphs 1 to 3 illustrate. The results for the period 1995 to 2006 and 2008 to 2011 are presented separately because of the change in the curriculum that took place in South Africa as mentioned earlier. Table 1 and graphs 1 – 3 show how the trend in the general pass rate was increasing and how the mathematics pass rate was fluctuating through the years. This fluctuation in learner attainment in mathematics led the department of education to put pressure on schools through the district offices to increase mathematics attainment.

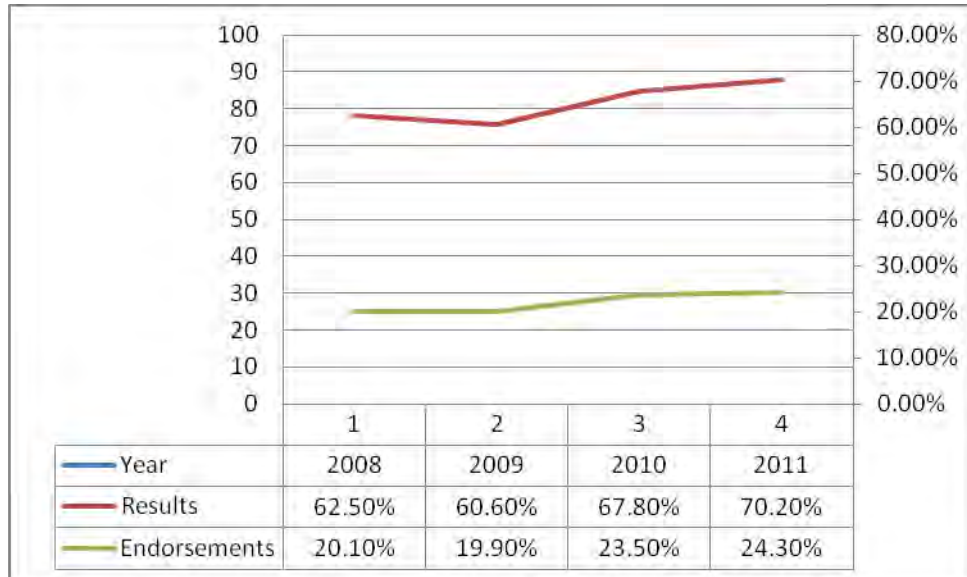
Table 1: Grade 12 passes in the national mathematics assessments from 1995 to 2006

Period	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Grade 12 pass %	32.1	34.3	30.8	34.7	28	33.9	32.1	30.2	29.7	28.9	28.1	28.3

Graph 1: Higher grade and standard grade mathematics passes from 1995 - 2006

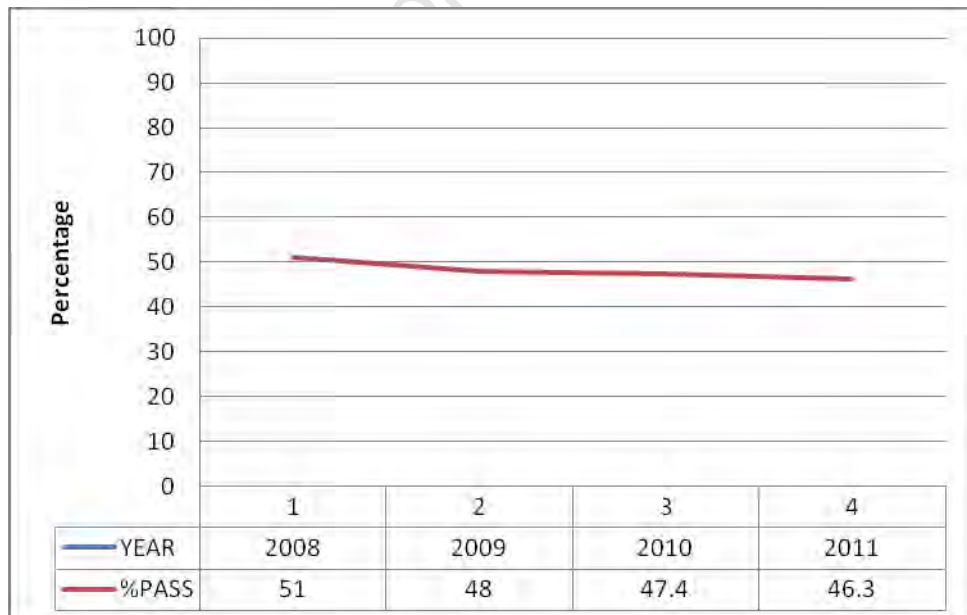
Modified from Taylor et al: 2007

Graph 2: Grade 12 Passes across all subjects 2008 - 2011



Modified from Taylor et al: 2007

Graph 3: Mathematics passes 2008 - 2011



Modified from Taylor et al: 2007

To improve the results, the National Department of Education put accountability measures in place after 2005 to bring reform to schools around the country, particularly within the under-performing schools. In my experience and circles many school leaders interpreted these

accountability measures as new and additional pressures as they redirected them from practices that they believed defined the profession and were core to what they saw as the primary aim of schooling to increased administration and monitoring activities. These accountability measures were more focussed on grade 12 results which were taken to be the measure of success.

The government was generally concerned about the level of skills in the country and various programmes were devised to address the concern. One of such was the Joint Initiative on Priority Skills Acquisition (JIPSA) initiative.

The programme aimed to increase the number of engineering graduates by 1000 a year (Taylor 2008). This meant that high schools had to produce learners with good mathematics and science passes to register for engineering studies at academies. Many previously disadvantaged schools could not produce the quality of grade 12 passes that the universities needed as entrance requirements for engineering.

The broad pattern of unequal achievement across schools has been widely recognised. Fleisch (2006) draws on the two economies thesis which he borrows from the 1998 state of reconciliation address by Thabo Mbeki on the report of the truth and reconciliation commission, to develop an account of a bimodal distribution of achievement. He argues that these two economies in the same country are responsible for two different sets of successes and failures. In a concerted way, he emphasises the link between poverty and performance. Social factors are sparsely compensated for by the provision of services and resources which are not provided equally to all schools and for all subjects.

In an attempt to improve achievement levels in poorer schools, the government offered support in the form of projects such as the Education Action Zone (EAZ) programme in the Gauteng province (Fleisch 2006), the District Development Support Programme (DDSP) and the Quality Learning Project (QLP). The intention of the programmes was to provide support and training as well as materials to principals, teachers and pupils.

Studies have been conducted on the link between increased resources and achievement (Fleisch 2002; Slavin 1998). These studies are not conclusive since there are many variables at play. Educator-learner ratios, teacher qualifications, school libraries, extra-tutors, computer-laboratories: all have an impact on learner performance to a limited extent.

In addition to offering support, the provincial and national education departments introduced accountability measures, with a particular focus on standardised testing.

Since 2007 standardised testing has been extended to primary schools nationally in the form of the ANA tests with a focus on Literacy and Numeracy (Lit-Num) tests for grade 3, 6 and 9. International tests were also introduced in the form of the Third International Mathematics and Science Study (TIMSS) (subsequently discontinued) and Southern and East African Consortium for Monitoring Education Quality (SACMEQ) (Fleisch 2006).

The emphasis on improved achievement initially placed the focus on results, including grade 12 results. Berkhout (2007) describes how leaders at schools present themselves according to the new public indicators of grade 12 results, and how this indicator has become the most prominent one in measuring achievement. She argues that implementation of new reforms puts school leaders at the centre of political conflict within the historic context of South Africa.

Weiler (1989) suggests that it is necessary to challenge the privileging powers of standardised test indicators which, he suggests, function at the expense of social justice. He argues that the focus on grade 12 results directs the discourse of education towards measurable outcomes and away from a transformative agenda for society. This transformative agenda would be oriented instead towards a welfarist idea of the public service ethos, a commitment to professional standards and values such as equity, care and social justice and an emphasis on cooperation, as suggested by Biesta (2004).

In pursuing improved learner achievement, school managers have been pressured to make decisions to improve pass rates. Prew (2013) has argued that these decisions do not always serve learners' interests. He compares the pass rates of Gauteng, the Western Cape and Eastern Cape and suggests that the performance of the three provinces differ because the Western Cape and Gauteng, which are relatively richer than the Eastern Cape, have fewer learners doing mathematics and more doing mathematical literacy. He explains that the pressure to ensure that the two provinces come on top in the grade 12 examinations has made school leaders sacrifice pupils' futures to that end.

The focus on results as indicators must be understood in relation to the dominant discourse of the marketization of education. Berkhout (2007) suggests that the debate on the marketization

of education and the attendant new-managerialism in education is shaped by the neo-liberal discourse of the free-market and the agencies that want to restructure schooling to fit those ideologies. The neo-liberal ideas that inform this discourse, Berkhout continues, promotes the idea of possessive individualism.

As education qualifications signify 'merit' in terms of a particular individual, and this in turn mediates livelihood, this emphasis on the individual becomes crucial in the shaping of the market discourse. In South Africa this discourse is linked to the powerful symbolism and the social allocative effect of the matric results seems to be the dominant one (Berkhout 2007: 5).

Like Weiler, Keller (2009) argues that a welfarist approach should be preferred to a market oriented approach which holds the view that morality is centrally concerned with the well-being of citizens. Gewirtz (1995) explains how the relationship between citizens and the state has been reconfigured and how managerialism has played a key role in that process. Welfarists believe that entitlements such as education must be provided for by the state and that all members of society should flourish as a result of the provision of those entitlements. They do however also acknowledge that provision of the education to which learners are entitled should be mediated by strict rules and regulations to ensure accountability.

Policy context: Accountability

Accountability is a central value in the government's delivery. The South African constitution (1996) names accountability alongside two other values which are responsiveness and openness as critical and core to the fledgling democracy. These are values, according to De Waal (2011), that need to be guaranteed by the multi-party system of the South African democracy. The DoE described accountability as "making responsibility an established custom according to the Codes of Conduct and ... formal expectations" (DoE 2001: 17).

In trying to achieve maximum learner outcomes, efficiency and effectiveness in South Africa the department of education has adopted accountability measures intended to direct schools and teachers towards improved practices. The underlying assumption in this kind of accountability is that standards are clearly defined, the curriculum sets out what is to be learned and that the national tests assess the extent of the achievement of standards (Taylor

2008). The grade 12 examinations, the WCED systematic tests and the Annual National Assessments (ANA) tests are the only system-level indicators in the country. The value of teachers is defined in terms of performance measures. Educational institutions and structures are managed as systems with resource inputs and performance outputs. The underlying values are those of efficiency, 'value for money', and productivity, underpinned by the public system analogue of profits and the maximisation of outputs. Teaching is viewed as a mechanical process (Ernest 1991), a means to the end of producing knowledge as a form of human capital.

Chisholm (2005) argues that the new performativity strategies that demand more from educational practitioners, towards maximising outputs, are ineffective in most cases and that accountability is currently realised in a relatively weak form in South Africa. She suggests that accountability is realised mainly through three mechanisms – increased standardised testing (especially through continuous assessment tasks and the grade 12 exam), the production of curriculum standards (the National Curriculum Statements or NCS), and the Integrated Quality Management System (IQMS). Although the emerging accountability system is weak in terms of rewards and sanctions attached to requirements, it is onerous in terms of the demands placed on schools, especially in their administrative components.

Together with the devolution of powers to schools and the increase in demands for site-based management, centralised control reasserted itself through the IQMS, NCS and WSE. These demands have an impact on the practice of school leaders particularly in trying to attend to necessary school programs while responding to external demands.

This shift towards a performative kind of accountability in South Africa translates into increased responsibilities for school leaders. These responsibilities require a balance between leadership and management (Portein, Shen and Williams 1998), leading in terms of having a vision for the school and managing day-to-day responsibilities and external demands. This shift is characterised by a customer oriented ethos, decisions driven by efficiency and cost-effectiveness, and an emphasis on competition. Covey (1989) writes about counter-productive practices such as competition at the expense of cooperation among co-workers. This competition tends to result in increased responsibility as practitioners have to work beyond their call of duty, sometimes with very minimal resources.

The new forms of accountability have an impact on how teachers practice in the classroom and on how school leaders lead. From this new perspective the success of education is measured in terms of the achievement of numerical targets. In this environment NEEDU (National Evaluation, Education and Development Unit) has been introduced by government as a structure that manages these accountability expectations. At the launch of NEEDU in 2011 the National Minister of Education (Angie Motshekga) commented that the education system needed to be monitored and evaluated in terms of how it was able or unable to support schools, learners, teachers, school managers, workers and parents. She emphasised ‘schools’, she said, ‘because they were at the heart of delivery and the main purpose of educational existence’ (Mail and Guardian 2011).

In the schooling system, accountability has, in the past, been achieved through school inspection. Taylor, who is the current CEO of NEEDU, commented at the planning and delivery oversight unit and NEEDU presentation in May 28 2012 that every education system in the world had an inspectorate to produce objective evidence-based assessment on the school system. NEEDU is a manifestation of such an inspectorate. Volmink, the former CEO of NEEDU, noted at a NEEDU strategic planning and reporting briefing (Mail and Guardian 2011 April 3) that they had been trying to avoid the word “inspection” which was a missing element in the South African system. He explained that the word was avoided because of the connotations it had with the past where it added no value to education. The word ‘evaluation’ was used instead, and the role of NEEDU was therefore to ensure that evaluation was directed towards accountability and development. To ensure that the unit (NEEDU) operated within the confines of its mandate, its functions were spelt out in detail.

When NEEDU was introduced, the School Self Evaluation (SSE) and Whole School Evaluation (WSE) were already in place as accountability systems and processes. Part of the rationale for establishing NEEDU was to clarify what teacher leadership entails and provide guidelines on how it should be exercised. At the launch of NEEDU the Minister of Education (Mail and Guardian April 3 2011) said it linked well with the system of performance and monitoring instituted in the presidency in 2009 to provide a strong measure of accountability and service delivery.

These accountability strategies are not unique to South Africa. Barry (1996) explains how state intervention was used in the U.S.A. to regulate and control schools, to evaluate schools

and to show what kinds of knowledge and thinking were valued. The state intervenes at a distance by employing expertise through “technical methods such as accounting and auditing” (Barry 1996, p.11). At the launch of NEEDU, Volmink used the same language in explaining the functions the unit would carry out in South Africa (Mail and Guardian 2011). Given the focus of this study on how school leaders respond to external support and pressure, I have summarised the functions of NEEDU that are intended to offer both support and pressure towards the improvement of practices in schools. This summary is based on the description of NEEDU’s functions in the South African Government Gazette No. 34858 (2011) these functions are:

- a) *Monitoring and evaluation.*
- b) *Identifying constraints to quality education and to support good practice.*
- c) *Make proposals for –*
 - 1) *Remedying shortcomings in educational practice;*
 - 2) *Eliminating barriers to quality education;*
 - 3) *Emulating examples of good practice;*
 - 4) *Developing the knowledge and professional capacity of educators and*
 - 5) *Improving the support provided to school governing bodies, professional managements and educators by the provincial and national departments;*

The Gazette envisages how NEEDU will provide support. In the performance of its functions, NEEDU has the authority to visit, after at least fourteen days’ notice has been given to the Head of Department, a school for the purpose of observing or assessing-

- a) *Classroom teaching;*
- b) *Educator knowledge;*
- c) *Learner knowledge;*
- d) *Professional management;*
- e) *The capacity, efficiency and effectiveness of a school governing body;*
- f) *The efficiency and effectiveness of support provided to schools, educators, professional managements and school governing bodies by a provincial or national department, or*
- g) *Anything related to their function that is consistent with this Act. (Government Gazette No. 34858 of December 2011: 16-17).*

The government gazette outlines specifically what the responsibilities functions, and mandate of NEEDU will be. The NEEDU has a mandate to assess, monitor, evaluate and support institutions at national, provincial, district and school level to ensure accountability to the ministry of education and the public at large. In the context of this study, the central question is to what extent the NEEDU will contribute to the pressure or support to schools.

John Volmink said at the launch of the education evaluation authority (The Teacher, April 2011:2): “central to the notion of quality education is accountability, which must be understood, institutionalised and renewed”. Volmink noted that there needed to be a balance between accountability and support, especially with regard to teacher development, and that one could not exist without the other. He acknowledged the need to have systems and support structures in place prior to exerting accountability pressures and demanding that performance standards be reached.

Research questions

1. What forms of external pressure and support were evident in one school in the context of attempts to improve school results and mathematics passes?
2. How did one school respond to external pressures and support aimed at improving learner attainment in general and mathematics quality passes in particular?
3. To what degree are the improvement strategies of one school non-substantive or substantive?

Chapter 2: Literature review

The purpose of this study is to examine how educators at a school responded to accountability pressures and support relating to the improvement of learners' grade 9 and 12 results in general and mathematics performance specifically. In order to locate this study in relation to relevant scholarship, this chapter offers a literature review which will be divided into four parts: The first section will trace the origins of forms of accountability in education; the second section will review literature relating to policy trends and related accountability measures; the third section will deal with how school leaders navigate these pressures and the fourth section will draw on the preceding discussion to introduce the conceptual resources that will guide the description and explanation of the leaders' responses.

Accountability in education

The hegemony of the globalised neo-liberal agenda has redefined education in terms of its contribution to the economy, writes Bottery (2004). On a similar note, Blackmore (2004) argues, in the context of Australia, that education serves national economic policies, in relation to which it is defined as both a problem and the solution. In seeking to address the skills shortage in South Africa, the government sought to align education with business, writes Christie (2003). The dominant language here, too, was that of developing curricula that fit the needs of production and the labour market.

In South Africa the idea of an education that fits the needs of the economy was defined in relation to high levels of skill and full employment for labour. These highly skilled workers would be organised in powerful trade unions, argues Fleish (2002). This meant that the linking of training and education would have to provide new skills to those who were previously denied access to jobs and social mobility.

According to Bottery (2004) the model of business production for education privileges centralising, standardising and controlling. This also applies to education in South Africa as it is at the present moment. A market discourse invites a focus on numeric measures of 'productivity'. Education growth has increasingly been defined by the number of learners that are registered at schools and the output in terms of learner attainment.

Linked to the process of expansion is the idea of standardisation, which Ritzer (2004) refers to as McDonaldisation. McDonaldisation is a process through which franchises spring up

around the world on a large scale and the standardised organisation is dedicated to consumerism. Ritzer expresses the concern that this consumerism is a central influence in the organisation of schools. The shift around the world towards the standardisation of frameworks defined by legislative high-stakes testing, inspecting, curriculum standards, monitoring and intervening in school performance in education (Bottery 2004) has been dramatic. Bottery argues that the cause of this shift is that policy makers are attracted to centralisation and a bureaucratic logic. This logic is measured in terms of measurable outputs. This means that the evaluation will be quantitative. This quantitative evaluation in education is about outcomes, specifically learner assessment results.

Dominant forms and culture of accountability

Biesta (2004) is critical of the current culture of accountability in education. He argues that the current accountability discourses and practices emerged as part of wider social transformation. Although Biesta's focus is on the kinds of relationships promoted by an accountability culture, he also examines the democratic potential of alternative forms of accountability. The most important reason for accountability in general, according to him, has to do with responsibility and stewardship. Biesta's critique introduces the idea that there are different discourses of accountability.

Biesta draws on Charlton's argument that accountability is a slippery term; he explains how it has a technical and more general meaning. The general meaning carries the connotation of responsibility, while the technical meaning refers to duties aligned to auditable accounts. Biesta differentiates between the two meanings of accountability, one being a system of mutual responsibility and the other being as a system of governance. He explains how the accountability discourse in education in the 1970's and early 1980's was strongly focussed on a professional interpretation of accountability in which teachers were responsible for their professional development and evaluation. A shift from professional accountability to a technical-managerial approach was informed by the wider transformation of society. "The new-managerialism is characterised by a customer oriented ethos, decisions driven by efficiency and cost-effectiveness, and the emphasis on competition, especially free market competition" (Biesta p.236). The focus on the new-managerialism can be best explained in terms of the forms and dimension of accountability.

A number of other authors also do not represent accountability as one phenomenon but rather focus on its different forms and dimensions. Koppell (2005) outlines five dimensions of accountability, which are, transparency, liability, controllability, responsibility and responsiveness. O'Day (2002) describes accountability as being about enhancing the quality of teaching and learning in the schooling sector and, like Biesta, argues that it can assume different forms. Anderson (2005) cites three types of accountability, compliance with regulations, results-driven and adherence to professional norms. De Clerq (2011) identifies four forms of accountability as illustrated in Table A3 below:

Table A3: Forms of accountability

	Bureaucratic accountability	Professional accountability	Public accountability	Managerialist accountability
Focus	Compliance with rules and regulations.	Professional competencies and collaborative effort.	Quality as measured by school results.	Teacher outcome performance or learner results.
Subject	Department to control systems and school quality.	Negotiated by peers to improve teacher quality through mobilisation.	Market and department to improve school quality and competitiveness.	Department to regulate from a distance and improve schools/teachers' productivity with rewards/sanctions.
Concerns	System rather than school and teachers' needs.	School/teacher's needs.	System and clients' needs	System/clients' needs, not schools/teachers' needs.
Evaluators	Line managers: inspectors/school managers looking for problems.	School line managers and peers.	No evaluators.	Line managers: inspectors/school managers.
Instrument of evaluation	Standardised a-contextual.	Context specific.	Non-negotiable league-tables.	Test results on state prescribed standards.

(Modified from De Clerq (2011))

While De Clerq identifies four separate forms of accountability, Gutman (1987) and O'Day (2004) argue for the need for a combination of accountability forms. Gutman argues for the combination of professional and public accountability, while O'Day argues for a combination of professional and bureaucratic accountability.

The dominant current form of accountability in South Africa is that which De Clerq characterises as 'managerialist'. Taylor (2008) assumes a managerialist accountability model when he says that the steady decline in the grade 12 results resulted in the South African government establishing a National Monitoring Forum to coordinate the improvement of

results, a forum in which all provincial departments contributed to what later became known as the standards based accountability reform initiative. This initiative resulted in standards based accountability measures. This standards based accountability approach would recruit high stakes standardised assessment processes.

The shift towards high stakes assessment processes for inspecting, monitoring and intervening in school performance in education results in rationalisation, says Bottery (2004). He argues that rationalisation is built on two assumptions: a) an activity can and should be evaluated in terms of measurable outputs and in terms of the value added in the course of the activity; b) that such evaluation can be undertaken in and through the finances used in the activity.

Bottery (2006) further explains how a managerialist form of accountability tends to measure observable and quantifiable outcomes even though the agenda of education is much broader. He advises educational leaders to develop their own proactive and reflexive forms of accountability that will not only focus on being seen to be doing good but those in which they will be doing good. Reflexive forms of accountability will be a good mix of all accountability forms. The attributes of professional accountability are: a public-service ethos, a commitment to professional standards and values such as equity and social justice and an emphasis on cooperation, says Biesta (2004) in agreement.

If managerialist accountability is not used alongside other forms of accountability, it results in pressures that come in the form of demands on education practitioners, says Swartz (2011). Blackmore argues in the context of managerialist accountability that the result of increased responsibility is increased risk for individual schools and principals, often in the context of fewer resources and minimal system support (2004 p. 440). In this managerialist environment, Blackmore identifies a tension between performativity ('being seen to be good') and passion (for 'doing good'). Principals, especially those in disadvantaged settings have to struggle "with competing demands between, on one hand, their passion for leading and teaching to effect more equitable and socially just public schooling in ways that address the needs of all their students and, on the other, the necessity to adhere to the new performativities required by markets and management for their schools' survival" (2004: 441).

Ball (2003) argues that performativity does not only change what teachers do but who they are. Instead of investigating and explaining performance and accountability, his approach is to investigate the causes stemming from mis-identity and the misplaced values of practitioners. This mis-identity then impacts on practice.

How school leaders navigate pressures

With regard to the effect of accountability pressures on principals, Blackmore (2004) argues that there are multiple layers of performativities that school managers need to manage; these in turn tend to manage them. These result in the ranking of schools which in turn influence the decision of where parents want to place their children. All these and other outcomes of performativity create professional, personal and social challenges for practitioners.

The managerialist approach to accountability leads to a set of formal and informal mechanisms responsible for making schools accountable to different stakeholders who are interested in outcomes, according to Barzano (2009). Barzano further explains how this poses a major challenge to school leaders in particular, where accountability could originate from different sources where interests and viewpoints differ, thereby creating clashes which are likely to lead to misunderstandings. These situations, where the strategies, policies and procedures that are inspired by accountability are at risk of being seen as creating disharmony, can lead to the questioning of the most important educational values. These accountability practices pull the school leaders in many directions. In this case school leaders are seen to be caught in the middle and “confronted by competing demands of meeting local needs and complying with centrally imposed directives” (Barzano 2009:2). The formal and informal mechanisms for school accountability are also about school improvement.

The emotional impact of accountability on school leaders is increasing as public schooling is increasingly reduced to a fear-driven exercise, explains Schmidt (2000). He argues that the well-intended culture of educational accountability aimed at improving schools has resulted in systems of unintentional consequences driven by a culture of fear. This has changed since the time when school leaders’ performances were assessed using a variety of indicators that reflected the complexity of the job to now, when their effectiveness was simplified and determined by narrower terms based primarily on how well the school performed on a standardised test (Schmidt cites McGhee and Nelson 2000).

Taylor (2001) is more positive in his view of the likely effects of these kinds of accountability measures. He sees them as a means for improving management systems that will ensure better regulation and coordination of workflows, from the office of the minister to the classroom. This, he says, will narrow the information gap between leaders and teachers in the classroom in terms of what is expected of them. The accountability demands can then be responsible for instructional accountability and motivation through incentives and sanctions. In this view, the narrowing of the gap in terms of access to information can be managed through strong school leadership.

Christie and Fleisch (2004) agree that at the centre of all school improvement is leadership, but they emphasise the need to understand the cultural context of leadership and management. It is important to realise that any organisational breakdown is also centred on the collapse of social relations of authority (Christie 2007). Schools are complex institutions shaped by complex relationships which could impact negatively on their governance if tampered with. The complex relationships that are tampered with could result in resistance which could partially be explained in terms of the lack of professional support for teachers prior to expecting them to be accountable (Corallo 2002). In an environment of standards-based accountability, a great deal of responsibility is placed on school principals to demonstrate high level learner achievement. Others focus on the relation between pressure and support in enactment of accountability measures.

Fleisch (2001) highlights the importance of reciprocating exerting pressure with providing appropriate kinds of pedagogical support. This kind of a balancing action can only be assumed by a school leader who has an in-depth understanding of his/her school's social context and the agency of the teachers at that particular school. This understanding should flow from general issues about the school to particular practices and performance.

This study has a particular interest in the ways in which a school responded to accountability measures that played out in relation to learner attainment in general and attainment in mathematics in particular. The pressure to improve mathematics performance in low-performing schools in South Africa was never preceded by proper and sustainable support that enabled teachers to sustain good performance after the intervention program was terminated, says Naong (2011). Most teachers, he says, understood this call for improvement to mean to get the job done by 'any means possible'. Naong's concerns point to the need for a

link between external compliance and internal aims to best achieve meaningful improvement. The best way, argues Naong, is to use professional reflection alongside the external bureaucratic accountability measures.

Accountability-type pressures, according to Shalem (2003), have a strong bias to a bureaucratic/managerial interpretation of change. Alternatively professional reflection allows for self-evaluation which brings to the fore the kinds of support needed by educators.

The move in national policy to allow schools to self- evaluate through the Self-School Evaluation (SSE), intends to allow schools not to become over-dependent on external accountability (Robinson 2003) and is intended to bring a balance between external and internal accountability. Self-School Evaluation is part of the Whole School Evaluation, in terms of which schools evaluate themselves before they are externally evaluated. Fleisch and Taylor's work on accountability advocates a convergence model of change which combines external regulation through the use of sanctions and rewards together with systemic means of teacher support.

Reflecting on the literature review to generate a conceptual framework

Policy based accountability measures generate particular organisational forms and practices. Within the current policy environment, these policies predominantly adopt a managerialist approach to accountability. This, according to De Clerq, means:

- The focus is on teacher outcomes and in relation to learner results.
- The department regulates from a distance and improves schools' and teachers' productivity with rewards and sanctions.
- The evaluators are line managers.

This approach generates both pressures on and support for school leaders. The managerialist approach places an emphasis on external measures of performance, such as learner results on standardised tests.

The accountability environment puts pressure on schools to produce results in high stakes testing (Anderson, 2005; Taylor 2008). Where there is inadequate capacity and support within schools, there is a danger that schools will see improved results as an end in itself, rather than as a reflection of levels and quality of learning across the student population. In other words, there is a danger that the focus might be on changing the numbers rather than on

improving pedagogic practices. It is this concern that frames the focus of the study on the substantive and non-substantive responses of educators.

School leaders must navigate these demands and pressures, and in doing so must relate external accountability measures to internal accountability measures. Where external accountability measures dominate, responses may be generated that are described in this dissertation as ‘non-substantive’ i.e. the focus is on complying for the sake of outcomes and compliance with external demands is divorced from internal accountability processes. Where a balance is achieved between external and internal measures, practices are more likely to be generated which are described in this paper as ‘substantive’ i.e. the focus is on compliance as a means to an end in support of internal aims. The kind of compliance for the sake of outcomes is usually a response to a particular external demand and is meant to remove the school leaders from the limelight. The following table translates these distinctions in terms of the features of these ideal type responses into a framework.

Table A4: Types of responses

Non-substantive	Substantive
<ul style="list-style-type: none"> • Focussing on compliance for the sake of outcomes and responding to external demands before concentrating on internal needs. 	<ul style="list-style-type: none"> • Complying while working on satisfying internal goals in relation to teaching and learning.
<ul style="list-style-type: none"> • Completing all externally demanded tasks without considering the relationship between outcome and quality of the learning process. 	<ul style="list-style-type: none"> • Benchmarking and using past data to inform future practice.
<ul style="list-style-type: none"> • Not building teacher’s capacity or systemic capacity to achieve quality results. 	<ul style="list-style-type: none"> • Focussing on educational development and increasing the capacity of teachers to achieve quality results.

As shown in the table above, the key concepts are the notions of performativity, substantiveness, non-substantiveness, pressure and support. Pressure and support are self-explanatory. By non-substantive I mean compliance for the sake of outcomes and as a response to external demands. ‘Substantiveness’ suggests complying with the view of strengthening future practice and teacher development for sustainability, in order ultimately to improve learning. The term ‘performativity’ has a meaning similar to ‘non-substantive’, emphasising a focus on being seen to comply.

Chapter 3: Design

History of the study

I had free access to the school in this study from early 2011 to the end of 2012¹. My participation in the life of the school gave me the status of a natural insider, or participant observer. During this time, district officials were communicating concern about the 2010 grade 12 results, at the school. I started reflecting on how the school leaders responded to external pressures. I decided to adopt a case study approach, which involved collecting data systematically and comprehensively

General approach

This study adopts a case study approach. This approach is used when an in-depth, holistic investigation is required. Yin (1993) identifies three types of case studies: exploratory, explanatory and descriptive. The exploratory approach is largely used as a prelude to research; an explanatory approach generally is adopted for causal investigations. Descriptive studies are guided by a descriptive theory which is in place before the studies are carried out.

Case studies emphasise detailed contextual analysis of a limited number of events or conditions and their relationships (Yin, 1984, p.23).

The conceptual framework guides the focus of my attention in this study. The focus of the study required that while participating in the life of the school I identified moments of interaction which related to pressure and support in relation to general learner attainment and mathematics results in particular. I then recorded those moments as well as the responses of school leaders with regards to that.

Case study with an ethnographic element

According to Genzuk (2003), ethnographic study generally refers to a scientific research tool used to collect empirical data through participant observation. The data collection method in ethnography is direct, first-hand observation of daily participation, conversation etc.

As Autrey puts it:

¹ I have chosen not to specify my role precisely in the interests of preserving the anonymity of the school.

Ethnography provides a structure upon which to hang the messiness of the everyday (1995:3).

According to Maynard (1991), ethnographers avoid coherent cultural worldviews as much as possible. They engage in ‘participant observation’ which is their basic research approach (Emerson, Fretz and Shaw 1995). Ethnography is a qualitative approach which emphasises description, observation, induction and grounded theory (Biklen 1992). It yields data that is rich in descriptions, conversations and not easily handled statistically.

It is a process of transforming observation and experience into inspectable texts (Autrey 1995:4).

I decided to include an ethnographic element of observation in this study as I intended to be a participant studying in detail how participants responded and why they responded the way they did.

What constitutes the case?

The case is that about which we have findings. In this study, the case is the school, with the focus on interactions between officials from the district, provincial or national office and the practitioners at school; relating to pressure and support in regards to learner attainment in general and mathematics results in particular. The data is constituted by recording observed responses and elicited instances of school leaders to external support and pressure relating to the improvement of the grade 12 results in general and mathematics results in particular.

School selection and context

The school in which this study was conducted is located in a township within the greater Cape Town area. This township was a product of the group areas act passed in 1950 which prohibited blacks from living in the cities. On average the ratio of high schools to primary schools in this township is 1: 3.

The school may be described as an underperforming school. A poor performing school in this study refers to a school that achieved a grade 12 pass rate of less than 50% in the 2010 NSC examination. This school was selected for the study because it was identified, by the district education office, as a school that was required to improve its mathematics results, and one which would receive support towards this end.

The school is located in a district where more than half of the high schools achieved an overall grade 12 pass rate below 50% in the 2010 examination i.e. over 50% of learners failed. One fifth of the high schools in the district, including the school in the study, achieved a pass rate below 40%.

School profile

I shall refer to the study site as school “T”. School ‘T’ has a learner enrolment of approximately 1200 and a teacher complement of 34 teachers, including the management team. The school offers grade 8 up to grade 12 and the largest grade group varies from year to year. In 2010 it was the grade 9 group. The school has a good record in areas such as sports, arts and culture. The school boasts a very successful sporting code in which 60% of the learners in the first rugby team have achieved provincial colours and about 50% have participated at national and international level.

The local community has a good relationship with the school community in that they interact on issues affecting the school, and vice-versa, contributing to projects that are mutually beneficial. The school has a sports field which is used by all sporting codes and a community garden which is manned by community structures.

At one point in its history, around 2005 – 2007, the school achieved a very high grade 12 pass and was among the best performers in the area. Unfortunately, after that the school’s results steadily declined until the pass rate was very low. After the year in which the school achieved excellent results the school principal was appointed to a higher position and the deputy principal retired. This resulted in the creation of a number of ‘acting’ positions. The second deputy acted as a principal, one head of department acted as a deputy, one educator acted as a head of department and a temporary position was created to fill in for the acting educator. This created a lot of instability as the posts were not filled until 2010 for the principal and 2011 for the second deputy principal respectively.

Staff profile

The teachers are appropriately qualified, with the lowest qualification being M +3 (Grade 12 plus three years tertiary qualification). Fewer than ten percent of the teachers have been in the profession for less than five years, which shows the level of experience in the field. The challenge, however, is that the school only had two qualified mathematics teachers and two

qualified physical science teachers, until one resigned who majored in mathematics and sciences in 2012 and left the school with one mathematics and science teacher. The two qualified mathematics teachers share mathematics teaching with other teachers who last did mathematics at high school or who minored in mathematics in their degrees. The same goes for physical sciences. Since all learners are expected to do some form of mathematics, some teachers teach mathematical literacy and others teach mathematics at grades 10- 12.

Data production and organisation

Recording moments in the life of the school pertaining to pressure and support

I focussed on collecting data from communication between leaders and teachers, among teachers themselves, textual and verbal communiqués, observations of individuals' responses to pressure and support and discussions (i.e. formal interviews and informal discussions). I selected these sets because they would show how pressure was communicated by the district officials to schools and School Management Team (SMT), and to teachers. The data sets would also show how pressure or support was understood by school leaders and teachers.

What data sets?

The table below shows the sources of data and indicates why these sources were selected and who the respondents were. It also indicates the form that data texts took. Data production processes included observing meetings, field-note taking, general observations, informal discussions and formal interviews. These methods gave me opportunities to observe and record the discourse about developing improvement strategies, pressure and institutional support. The multiplicity of data types and sources cumulatively contributed towards the depth and validity of the study. The next section will discuss each data production strategy more fully.

Table 2: Data collection

Sources/Events	Purpose	Context	Respondents	Data texts	Frequency
Meetings	Identify and observe instances of support and pressure exerted toward improving grade 12 results and mathematics results.	Departmental meetings. Staff meetings.	Officials and school management.	Minutes Diary. Notes.	Once a week.
Informal discussions.	Elicit or note expression of perceptions of individuals with regards to activities around the improvement of results.	Unplanned, spontaneous interactions.	Teachers, managers and officials.	Diary. Notes.	Daily when a important observation occurred.
Interviews.	Elicit subjects' insights, and views on incidents relating to pressure and support in relation to the improvement of results.	Arranged interviews with selected respondents.	Principal, deputy principal, mathematics head of department and mathematics teacher.	Diary. Transcripts.	Once every term for a year.
Circulars.	Examine how improvement/support/pressures are communicated by the department.			Circulars.	Every month.

Primary and secondary participants

The primary participants in this study were the principal, the deputy principal, the mathematics head of department and the mathematics teacher. These participants were selected as they were the main conduits between the district and the school, for communicating pressure and support. The secondary participants were other role-players from within and without the school who relayed the pressures of the department, strategized responses to the pressure or responded to the pressures. These included district officials who came to the school and teachers who were involved in responses to pressure and support measures.

Observation of meetings and daily interactions of staff

Purpose

I observed meetings between departmental officials with the school as they communicated strategies for improving results and how that would be done. In these meetings I recorded only those moments where reference was made to improvement of results. I recorded whether these references were accompanied by indication of pressure and support and also whether strategies were discussed internally as a response to external demands.

I recorded the purpose and content of the event and the nature of the interaction. I noted, for example, whether the meeting took the form of an information session where departmental officials told teachers what to do and they passively complied or if there was a constructive exchange of what and how things would be done.

I observed the members of the mathematics department when they met formally or informally to discuss strategies to improve grade 12 results and mathematics passes in particular. I observed how members of the department responded to support and pressure and how their responses were translated into ways of complying. In these meetings I observed whether strategies were adapted to improve results.

The recording took the form of written notes. I used a research diary that I continually updated during observations. In the diary I recorded all my observations, both planned and unplanned. I recorded all observations of informal discussions that I witnessed on how teachers believed results could be improved and what their personal contribution would be as a way of complying with external pressure or support. The diary helped in providing a timeline to illustrate thick descriptions, as McNiff (2004) suggests, and to chart progress.

Subjects

The government officials became subjects of my observations when visiting the school to support or demand accountability, especially when the purpose of their visits or communication were related to the improvement of results. The school management team were also subjects of my observation, particularly at events where strategies for results improvement were developed and where they engaged with school challenges. Members of the mathematics department were observed at events where they developed strategies to improve mathematics performance. Teachers and curriculum advisors were also subjects of observation when discussions that took place referred to results improvement and the expectation of the district office in relation to learner attainment.

Formal and informal Interviews

Purpose

I conducted formal and informal interviews. The formal interviews were pre-planned with pre-structured questions while the informal interviews were spontaneous and the discussions were impromptu. The interviews were open ended because I did not want the respondents to

be restricted to the questions I was asking but to give extra information where possible. In the formal interviews, my purpose was to elicit insights into how selected personnel experienced pressure or support and how they responded.

Subjects

I interviewed the principal, the deputy principal, the mathematics head of department and one grade 12 mathematics teacher. I also conducted informal interviews with individuals at school when I observed responses or activities in their quest to improve overall school results.

These four people, the principal, deputy principal, head of department and mathematics teacher, are central to my study as they are the personnel expected to improve the mathematics results and the general school results. The recordings took the form of both written notes and voice recordings.

The interview questions were guided by the conceptual framework. The questions focussed on (1) the interviewee's experience of measures perceived to be offering support or pressure towards improvement of overall or mathematics results; (2) motivation provided to teachers to boost the teacher morale; (3) the interviewee's perceptions of the consequences of these measures.

Communication with the district, provincial and national departments

Communications that were sent to the school from the district, provincial and the national offices about improving grade 12 results and mathematics results specifically also formed part of my data. My focus was on how the message was conveyed and on the content of the communication. This enabled me to see, for example, whether instructions were given with sufficient consultation and what deadlines were given for submission. I collected or recorded circulars, mail and recorded conversation of communication on how school results would be improved

Data organisation

I compiled a data file which was divided into an interview folder, a workshops folder, meetings folder and a correspondence folder. Each file and text was coded.

Approach to analysis

Within each data text, I identified units of data and categorized them into instances of support or pressure. A unit in this context refers to an excerpt that makes some sort of reference to support or pressure relating to the improvement of the grade 12 results in general and mathematics results in particular. I then went through these systematically to identify different forms of support and pressure. The data was then organised into further categories that emerged from an initial analysis i.e., the sources of the support or pressure, the status of the pressure or support and finally its effects.

I identified three types of support:

- a) Curriculum delivery: This relates to the delivery of curriculum in the classroom i.e. teaching.
- b) Teacher morale: This refers to instances of support aimed at improving the morale of teachers as they go about their professional duties.
- c) Resource material: support which relates to the provision of learning and teaching support material (LTSM) and other resources that make learning and teaching possible.
- d) Teacher development requirements.

Each instance of support was categorised in relation to its source and level. This indicates whether it is internal, i.e. support provided by the school or external, i.e. support provided by the district, provincially or the national education department.

Each instance of support was categorised in terms of status: i.e. whether the support was withheld, expected, absent, provided (minimally or extensively) or discontinued.

Finally, each instance of support was categorised according to whether its effects were substantive or not substantive.

Data segments pertaining to pressure were also categorised into three types:

- (a) Instances of pressure relating to performance demands, i.e. demands about the teaching in the classroom.
- (b) Policy targets pressures are related to the targets set outside of the school.

Pressure was also categorised as being internal and external; that which is exerted from within the school and that which comes from officials outside the school.

Instances of pressure and support were also categorised in relation to status: which were expected, exerted, discontinued or withheld, as well as the effects, which were substantive or not substantive.

The decision as to whether responses to support or pressure are substantive or non-substantive is informed by whether compliance is perceived to be a means or an end. Substantive responses to support and/or pressure are those which are intended to lead to improvements in teaching and learning. Non-substantive responses to support and/or pressure are those which simply are administrative or compliant or are geared towards improved observable indicators but do not necessarily lead to improved learning and teaching.

Development of the analytical framework

The table below shows how I organised the data in terms of the types, the sources, status and effects. The table will appear in more detail in the data analysis chapter.

Table B1 Analytic categories

Domains	Source and level	Status	Effects	
Curriculum delivery	Internal or external	Expected, discontinued, provided, withheld and absent.	Substantive or non-substantive	Support or pressure
Teacher development				
Teacher morale				
Resource material				

The next section offers an example of how the analytic framework was employed with regard to one specific data segment.

Example

In the first staff meeting of 2012, the 2011 grade 12 results were analysed and it was discovered that fewer than 30% of learners had passed mathematics. Following this I observed an SMT meeting in which strategies for improving the grade 12 results were discussed. I recorded a comment by manager F. *“We need to have extra-classes where we are going to emphasise and repeat lessons. These extra-classes should be driven by work-sheets that we shall develop at departmental level.”* I recorded this comment as it related to strategies intended to improve results.

After consultations with the staff at large, letters were sent out to parents informing them of the program. A timetable was drawn up and duplication paper, riso-machine and computers

were used to produce work-sheets. Each HOD met with his/her team and carefully developed a program that would suit the learners' needs.

This data segment relating to this interaction was categorised as curriculum delivery support. The support was internal as it was provided by the school. The program dealt decisively with the knowledge gap, with emphasis on challenging topics which were mostly higher order questions. The program was a response to performance pressure and the response was categorised as substantive.

The following table illustrates how the criteria for establishing whether an event was substantive or not were applied.

Table B2: Illustration of application of criteria for categorising an event as substantive or non-substantive

Non-substantive	Substantive
<ul style="list-style-type: none"> Focussing on compliance for the sake of outcomes and responding to external demands before concentrating on internal needs. <p><i>"I used past examination question papers to teach content in the classroom; I want my kids to get used to the assessment style."</i> Teacher P said in preparing grade 9s for the ANAS.</p>	<ul style="list-style-type: none"> Complying while working on satisfying internal goals in relation to teaching and learning. <p><i>"I am using past question papers to summarize and review content I already taught in my class, this helped to prepare learners for the assessment."</i> Teacher M said in an informal interview while preparing for the grade 9 ANAs.</p>
<ul style="list-style-type: none"> Completing all externally demanded tasks without considering the relationship between outcome and quality of the learning process. <p><i>Sending the SIM report to respond to the departmental demand without using the data to inform internal processes.</i></p>	<ul style="list-style-type: none"> Benchmarking and using past data to inform future practice. <p><i>Studying the SIM report and using it to benchmark internal practice and to improve learning and teaching.</i></p>
<ul style="list-style-type: none"> Not building teacher's capacity or systemic capacity to achieve quality results. <p><i>Excluding school based teachers in the tutoring program that improves results and thus failing to sustain the results.</i></p>	<ul style="list-style-type: none"> Focussing on educational development and increasing the capacity of teachers to achieve quality results. <p><i>Including teachers in the tutoring program to observe and learn new pedagogies, thus enabling them to maintain and sustain good results.</i></p>

Design challenges

The case-study (with ethnographic elements) was a challenge at two levels. The first level was that ethnography as a study is complex and challenging for a 'natural insider'. By natural insider I am referring to an individual who has a role in the life of the school other than that of researcher. The decision to include an ethnographic component in the study was to provide an in-depth description of the practice at school, and to try to make it as detailed as I could.

In the study I generated an 'insider's point of view'. This was challenging as multiple meanings emerged and sometimes conflicted with my personal understanding of how things were supposed to be. The greatest challenge was for me to allow these meanings to emerge rather than impose my prior understandings from my personal experience. As a participant observer, I sometimes encountered situations where I had to remind myself of my role as a researcher and not provide advice. As participant observer, I both experienced the daily life of the school and had to describe the experience with a measure of detachment.

Validity of the research process

Qualitative research studies have been criticised as being unable to produce valid results (Maxwell 1992). This critique emerges from writers who base their categories of validity on quantitative and experimental research designs. The issue of validity is approached differently in a qualitative case study. Here validity refers to the relationships between descriptions and those things that are described. As Maxwell (1992) points out, validity is not dependant on some objective truth which the account represents but on the fact that the description faithfully describes those things that the account claims to be about from the view of the participants.

Since I was part of the study, I decided to separate my role as a researcher with my general interest in education. This is not an easy thing to do as I was sometimes tempted to work professional solutions into research questions.

I found that it was a challenge to ask questions about situations which I had observed and thought to be familiar and to which I thought I had solutions. In some cases I also discovered that the respondents felt it was time consuming to answer questions to which they knew I already had the answer. It was in these conditions that I took to explaining that our

perspectives differed and that we interpreted situations differently, and that I needed to be sure that I understood their viewpoints.

I focused on achieving descriptive validity by not making up or distorting my observations. I strove for interpretive validity in which my concerns related to the meaning of objects, events and behaviours of the people who engaged with them, as explained by research subjects. Finally, I strove for theoretical validity where I made connections between theoretical concepts as applied to empirical instances to check if they were applied correctly.

Interpretive validity

In order not to superimpose my perceptions, I came up with a strategy to check my perspectives. I consulted with the study participants to confirm if my observations were consistent with their perceptions. These individuals were critical and engaged me on my observations and recordings of the everyday events. I also benefited from my supervisor who critically engaged me on the data collected and the conclusions I reached. I engaged with the principal, the deputy principal, the mathematics teacher and the mathematics head of department as my critical friends (McNiff 2004), in terms of whether my observations were a true reflection of their actions and also to clarify their accounts of events.

Descriptive validity

I used Erikson's (1984: 58 -59) "test questions" to guide me during the ethnography component of the research. Erikson recommends that ethnographers ask themselves the following questions: How did I arrive at this overall point of view? What did I leave out and what did I leave in? What was the rationale for the selection? How much did I monitor? Why did I monitor behaviour in some situations and not in others? What grounds do I have for determining meaning from the actors' point of view? I also tested what I observed against my theoretical framework.

Ethical procedures and permissions

I asked for permission at a general staff meeting to record my observations with regard to how the school in general and individuals in particular responded to external pressure and this was granted. I followed up on that request by writing a letter to the SGB (School Governing Body) and principal formally asking for permission to conduct this study at the school. This letter was accompanied by an ethics statement in which I pledged not to divulge the names of

the participants and the school unless permission was granted to do so. I also sought the permission of the provincial education department and all individual participants; I got all the necessary permissions. Some of the description of the site of research and methodology was general to observe the confidentiality of the school and individuals who participated.

Ethical considerations

“Representation of truth is based on ontological and epistemological world views, yet it carries important implications for ethics.” (Bresler 1996). Since multiple realities are shaped by context(s) no single truth is available.

I observed the interactions, events and practices as a participant observer, where decisions were made about improving results. Staff at the school knew about my intention to conduct a study and they also accepted both my role as a researcher and a participant. The ethical considerations of such a relationship have been discussed previously; however the difficulties of keeping the two roles separate were immense. These difficulties emerge from the multiple realities and interpretations of role-players. I therefore continuously reflected on the data and deliberations, revealing errors, mistakes, miscalculations and misjudgements so as to learn from my own experience. These reflection sessions occurred daily through engaging with data and journaling my findings.

Chapter 4: Presentation and discussion of findings

This chapter presents data relating to how school leadership responded to pressure and support with regard to the improvement of results in the grade 12 class in general and mathematics in particular during a two year period. This data is organized according to activity domains that emerged as categories from a systematic reading of the data: 1) Curriculum and assessment 2) Performance demands 3) Teacher development support 4) Teacher morale support and 5) Resource material support. Within each activity domain the analysis describes the interactions in terms of: a) whether these were instances of support or pressure, b) whether they were initiated externally or internally, c) the status of the instances of support or pressure and d) whether the school's response was substantive or non-substantive.

Curriculum and assessment

In recent years, standardized testing has become the primary accountability measure within schooling systems internationally, and also in South Africa. They have also become the target for support and the vehicle for pressure. This section describes how this played out in the study school. Normally curriculum precedes and frames assessment, but these are two sides of the same coin. The transition from traditional to outcomes based education in South Africa meant that the curriculum would be assessment driven. This put the emphasis on the outcomes of the assessments which later translated into performance demands. Government focused on improving literacy and numeracy skills in learners and set specific targets to be achieved by 2014 and beyond. The ANA and the provincial systematic tests were introduced as tools to measure learners' progress and to establish their level of performance. Teachers were expected to ensure that the performance of learners in the assessments was at the standard set by the department of education or beyond.

The amount of pressure was experienced the most at the two exit points of the General Education and Training (GET) and Further Education and Training (FET) bands which are grade 9 and grade 12 respectively, and the reason was that they were both assessed externally, albeit for different aims. The following chapter will discuss the demands in

relation to the grade 12 class and the grade 9 assessment practices will be discussed in detail in the standardized testing section.

Performance demands

From 2010 to 2012 there was pressure for results to improve and performance demands by the district and provincial officials on teachers and school leaders in the school. These performance demands were made on school leaders and were relayed to subject teachers in terms of how learners were supposed to perform.

In 2010 fewer than 40% of grade 12 learners passed the examination as a whole and fewer than 30% of learners passed mathematics, physical sciences and accounting respectively. After very disappointing grade 12 results in 2010, the school's overall grade 12 pass rate improved in the following years. In 2011 the general grade 12 results almost doubled. There was an improvement in physical sciences and accounting, where more than 50% of learners passed, but not in mathematics.²

In 2012 the results further improved considerably. These shifts were considerable but certain subjects were still not breaking the performance ceiling of a total of 50% of learners passing. In 2012, the demands that mathematics, physical sciences and accounting results be improved were exerted both internally and externally. These demands were not only that learners should pass, but also that they should achieve over 40%. This meant that each learner who achieved 40% or above had a greater likelihood of being allowed to take that subject as a major for tertiary study or be accepted in the programme in which they wished to study.

External performance demands

Pressure was communicated to the school via workshops, standard setting meetings, curriculum visits to the school, circulars, telephone calls and visits by other departmental officials.

At a training session at the Cape Teaching and Leadership Institute (CTLI) in 2011, the presenter said,

² I am intentionally not mentioning the exact results achieved in the grade 12 results at the school because it may compromise the confidentiality of the participants and the school under study

Schools must realize that they are crippling those learners who pass their grade 12 with an average of 30%, they must realize that they are not supporting the economic development of this country.

Subsequently Curriculum Advisors (CAs) also emphasized this message. Most CAs demanded that no learner should achieve lower than 40% in the subjects that they support. At the beginning of each year teachers were invited to a standard setting meeting where they met the CAs who statistically analyzed the previous year's results against set targets and compared these results to those of other districts. At the standard setting meeting for mathematical literacy in January 2012 the CA said,

Our district has performed badly compared to other districts in 2011; I need you (teachers) to increase learner performance in the 40% and above categories this year.

The CA insisted that the school shift the bell-curve representing learner results, so that more learners achieved over 40%.

In the first term of 2012 the mathematics CA visited the school. She met the mathematics teachers and looked at their files and learners' books, and in her report demanded that the mathematics teachers devise means and strategies to improve the mathematics results in grade 12 and other grades. These demands were responded to in many different ways by the mathematics teachers. At the end of 2011 the mathematics teachers demanded that learners who wanted to take mathematics as a subject in grade 10 would have to achieve a 50% or above pass in grade 9. If they achieved below the set percentage they would be encouraged to take mathematical literacy. The idea was implemented in 2012 but in cases where parents objected and offered to support their children at home and find private tutors to help with their mathematics, they were allowed by the school to take mathematics in grade 10.

Performance demands were highly visible at the end of each term when schools were expected to send learner performance statistics to the district office through the IMG and to explain why a particular subject had performed badly and to tabulate strategies to remedy the situation and improve performance. The CAs' school visits in the following term was informed by the statistics sent to the district office in the previous term. The demands increased and the pressure mounted.

On a quarterly basis schools are expected to submit to the district office a report known as the School Improvement Monitoring (SIM) report. The SIM report is a report of learner performance in grade 12 against the target set by the school in the School Improvement Plan (SIP). The school is given a template on which to fill in the data to be sent to the district office. The report is organized in a particular way (see TABLE G below).

TABLE G: SIM report template

Name of district:						
Name of school:						
No. of grade 12 candidates:						
Total number of learners passed:						
Subject	Learners passing between 0 – 29%	30 – 39%	40 – 49%	50 – 59%	60 – 69%	70 and above
Accounting						
English FAL						
Mathematics						
Mathematical Literacy						
Physical Sciences						

This report was accompanied by mark-sheets of all subjects assessed in grade 12. Teachers in each subject submitted a mark sheet to the deputy principal who organized them into a file to be submitted to the district office. This file was verified by the CAs and submitted to the provincial office. The submission of the SIM and the mark sheet informed decisions on curricular support; the details on curricular support are discussed in the curriculum support section in detail.

Internal performance demands

These external performance demands are relayed internally by the school management (particularly H.O.D's in their various departments). In 2011 the school achieved above 60% overall grade 12 pass i.e. at least 60% of the learners passed in most subjects. In mathematics fewer than 30% of the learners passed. At the strategic meeting called to discuss how to improve the results, the deputy principal remarked that, had the school achieved above 60%

in mathematics, the overall pass percentage could have been above 80%. The SMT supported the statement and the mathematics H.O.D responded that she would devise means and strategies together with her department to improve the pass percentage of mathematics as it seemed it spoiled the overall school performance. This in itself acted as pressure and an internal demand on the mathematics department to improve performance. As the physical science H.O.D put it in the interviews,

We do our best to encourage teachers to put an extra effort in realizing better results.

The performance demands from the district and provincial departments were withdrawn at the point where subjects performed above the set standards. This was the case with science and accounting in 2012, but not with mathematics. The curriculum visits to the science and accounting departments decreased and the SMT also eased their performance demands on teachers in subjects where learners performed as expected. This meant that pressure decreased, support was withdrawn and efforts were not sustained. The focus was on quantitative results thresholds and not on ongoing and further improvement in learning and teaching. This promoted a culture in which teachers wanted to improve results at all costs using any possible means. A classic example is the decision mentioned above that grade 9 learners had to achieve 50% in mathematics in order to take mathematics in grade 10: if they achieved less than 50% they were directed to take mathematical literacy.

In 2011 the external performance demands were big on monitoring outputs and very small on inputs, enhancing capabilities, supporting sustainability and improving teaching and learning. This point is be elaborated in the standardized testing section below.

Standardized testing pressures

In South Africa, grade 12s write a common standardized examination at the end of the fourth term, which marks the end of high school life for them. The focus had been on the results generated from these examinations until recently when the systematic tests, only written in the Western Cape by grade 9's, and the Annual National Assessment (ANA), written nationally by all grade 9's, were introduced. In 2009 the provincial and national departments of education first communicated their intention of assessing grade 9, which is the exit point of the General Education and Training band (GET), in the same way as grade 12, which is the exit point of the Further Education and Training band (FET).

The school in this study participated in the systematic test pilot in 2010 and also in the provincial roll-out in 2011. In 2012 the ANA tests were written for the first time nationally in grade 9. So this meant that there were two parallel sets of external assessments each year. The district office communicated these intentions to principals at a meeting for principals at the district offices. Later, officials were sent to the school from the province to make the necessary arrangements with the school, in terms of dates, number of classes to be used and invigilation. The school was also expected to complete an online registration process with the Centralized Educational Management Information Systems (CEMIS) to verify learner registration in the grade 9 class, exactly the same way as was the case with the grade 12s. On the curriculum scheduled visits, CAs would remind teachers of the systematic tests and the ANA.

The systematic tests are written in the third term annually before the spring holidays and are marked externally. The ANA tests are written at the beginning of the fourth term and are marked internally by teachers teaching those specific grades. In between the systematic tests and the ANA tests, teachers administered the school based assessments for progression and promotion purposes.

External standardized testing pressures

After the systematic tests had been written in 2010, the CTM called a meeting. The purpose of the meeting, which took place in 2011, was to announce the results of the tests. The meeting was attended by the school management teams of the schools in the specific circuit.

This event, at which results were announced, was experienced as an embarrassment and humiliation by those whose schools did not perform well in the provincial systematic tests and an exhilarating experience for those from schools that did well. The teachers at the school in this study experienced feelings of alienation, and felt that they were defined by the test scores achieved by the learners they taught. Ms. C, who is the head of the English department, said after the presentation,

I wish these results could have been sent to school for individual analysis. Now everybody knows my department performed badly in the systematic tests.

At the meeting, the Circuit Team Manager (CTM) made the suggestion that teachers use the past systematic test question papers and exemplars on the Western Cape Education

Department (WCED) website to prepare learners for the tests. In discussions that ensued within the school mathematics department some expressed the concern that the use of the past test papers and exemplars could become a substitute for teaching as set out in the curriculum guidelines, if not properly monitored. The strongest response was that the systematic test results should be improved no matter what it took. This discussion led to a much bigger discussion of curriculum monitoring and planning by SMTs, where the focus was on assessment strategies. This response to standardized testing by SMTs was non-substantive as the focus was on improving results in these specific tests at the expense of sustaining quality teaching standards across the year and across grades. The tests were not seen in relation to the curriculum as a whole, but rather as a separate event and an end in itself.

Besides the expectation for grade 9s to perform well in the standardized tests, they were also required to achieve the pass requirements in the school based assessments which were moderated quarterly by the CAs and verified in the fourth term at the district office, exactly the same way as the grade 12s were. These goals were seen as being in tension with each other.

One of the effects of the public naming of high and low achieving schools at the circuit meeting was that there was an increased emphasis on an explicit hierarchy of schools in the area based on the assessment results. This emphasis was further strengthened when the circuit office organized a prize giving event at which higher performing schools received prizes. The effect was the creation of an informal league table of schools in the area.

Internal standardized testing pressures

In 2012, the grade 9 cohort at the school wrote the ANA tests. The process was experienced, within the school, as a form of pressure and a source of anxiety. There was a negative response to these demands as school staff believed that the school did not have the capacity to produce good results in these tests for reasons that were not all related to the quality of teaching and learning at the school. Teacher B remarked,

I do not believe that I can be able to prepare the learners for the systematic test, the ANA and then for the formal assessments. It is too much for these poor learners.

The assessment processes and management of the ANA and the Western Cape systematic tests were diametrically different and since the ANA were only introduced in 2012 at the

school, the tests posed a serious challenge. The energy of the school had to be concentrated on the ANA in terms of invigilation and marking, something that was outsourced in the Western Cape systematic tests. The entire mathematics department at the school had to help in the marking of the ANA with the exception of the grade 12 teachers who were also focusing on the trial examination marking.

Part of the reason for the perception that the school could not produce good results related to language issues. It is widely recognized that learners in many South African schools struggle with English as a medium of instruction throughout their schooling (Fleisch 2000). The language of the ANA was a challenge for the grade 9 English second language learners. None of the learners at the school speaks English as a home language and most learners in South Africa are assessed and taught for the first time in the English language in grade 3. In the view of teachers, the assessed content of the ANA was at the learners' level but the complexity of the language was far above their level of comprehension. These ANA are set to be written across the board by all learners, whether first or second language English speakers. The register of learners in the second additional language is perceived as being inferior to that of the first language learners and therefore setting an assessment using the same register is perceived to be 'unfair'. The pressure was therefore felt by teachers whose learners were less proficient in English.

The ANA and the Western Cape systematic test results are not used for promotion and progression. They are said to be used to inform teaching in the classroom and also to gauge the standards of learning in the classroom. However, the feedback is usually statistical and is not properly organized to inform the teaching processes in the classroom. In the case of the Western Cape systematic tests, the information sent back to the school is not a diagnostic analysis of learner results in order to target help in areas where they are lacking. The results analysis focuses on the total number that passed and the average pass percentage and mark in the particular subject. In the case of the ANA, teachers mark the scripts themselves and may get a sense of where learners are lacking, but they have not been trained to collate data in a diagnostic way so as to target help where necessary. These external standardized tests therefore do not achieve the main aim of informing teaching with respect to the shortfalls of learners in terms of content knowledge and mastery. This failure to bridge the gap between

what is assessed and feedback has not informed the pedagogy and class processes in the classroom.

Following the implementation of the Western Cape systematic tests and ANA in the school the staff experienced frustration, and the experience impacted on the morale and practices within the school. The intention of the district in publicizing the systematic results in a meeting was to challenge schools that did not perform well and to encourage those that did, but teachers at this school, which had not produced good results, felt hopeless and distraught. This experience shifted the culture within the school to one in which the school was defined by a focus on large-scale assessment that focused primarily on testing. The presentation of the systematic test results diverted the attention of the school to an accountability environment which defined teachers by the test scores and general achievement ratings and left a great number of teachers with a range of emotional vicissitudes.

The primary schools that are feeder schools to the school under study were themselves identified in the presentation as either 'poor' or 'good' in terms of their performance, and schools started to form new alliances and break old ones based on how schools performed in the systematic tests in 2010. More recently, subsequent to the 2011/2012 overall results improvement, the school under study has attracted a number of potential allies who in the past allied with other better performing schools. Primary schools seek allies in high schools that have a high results output and high schools also ally with primary schools that have a high systematic test or ANA output in grade 3 and 6 as these learners will be best prepared for the high school syllabus.

In 2011, as the systematic test dates approached, the school experienced high levels of gang-war attacks on learners in the mornings as they came to school and after school when they left for home. The attacks led to an increase in the number of learners who stayed at home during the period and that had a very negative effect on the results. The grade 12 examinations were also written under these very difficult conditions, where candidates were not relaxed and often anxious about what might happen after the examination as they walked home. The school had to work with the local police to patrol the school vicinity to identify suspicious activities. These conditions affected the candidates in terms of what their focus should be and led to learner anxiety during the examinations.

As the ANA and the systematic tests approached in 2012, a year after the meeting in which the first systematic test results were presented, teachers oriented their teaching to the approaching tests. This led to teachers using past exam papers to drill learners on how to respond to questions rather than focusing on the content and sequencing of the curriculum. Teachers argued that the difference in the assessment styles between the three assessments and the vast content covered across the three sets of assessment necessitated this response. The table below shows when the tests were administered, how they were marked and their contribution to the grade 9 final result.

Table B3: External standardized testing and internal school based assessment

Test	Contribution to year end results	Marking	Period
ANA	Not used for judgments at end of term	Marked by teachers at school.	19- 21 September 2012.
SBA (School based assessments)	Used for judgment at the end of term.	Marked by teachers at school.	24 – 28 September 2012.
Spring holidays			1 – 8 October 2012.
Systematic Tests	Not used for judgment at the end of term.	Marked externally by the province.	10 – 23 October 2012.

I asked the mathematics head of department (HOD) about the preparedness of the learners and the strategies that the teachers had used to prepare learners. She explained that the challenge was that the ANA and systematic tests were written within a space of two weeks and that these were punctuated by a school break in between. She told me how difficult it was to prepare learners for the school-based term assessments for progression while also preparing them for external assessments. The ANA and systematic tests have different styles of assessment and aims. Mathematics teachers assembled all grade 9 learners into a mass class to go over past ANA and systematic assessment questions. Learners enjoyed the experience but the outcomes of the tests were no better than the previous year.

The standardized tests pressures from the district officials were relayed internally by HODs who attempted to ensure that teachers in their departments produced quality results in the respective subjects. The mathematics HOD offered teachers support by encouraging team-

teaching, the use of technology such as mathematics software and videos in math mathematics teaching, material development, mock assessment and revision.

In general, the internal response to the pressure to improve ANA results was non-substantive. The focus was on improving mathematics results in these specific tests and this grade and not necessarily on improving mathematics knowledge, learning and teaching in a more systematic way. The focus was on one subject (mathematics) at the expense of other subjects such as natural sciences, the economic and management sciences and specifically accountancy where learners struggle. There was a clear distinction between a focus on improving test results and a focus on using testing to improve knowledge of mathematics. The response to standardized testing saw the teachers falling into the trap of loosening the integral relationship between testing and the strengthening of mathematical knowledge.

Managing grade 12 learner attainment

After the disastrous grade 12 results in 2010, the School Management Team (SMT) and the teachers strategized around results improvement. The SMT was mandated to find ways in which the grade 12 learners could be supported in the subjects that they performed badly in while they were doing grade 11.

External support for grade 12 learner attainment

The curriculum pillar at the district office provided tutoring in subjects that the grade 12s of the previous year did badly in. In 2011, tutoring was provided for mathematics, physical sciences and accounting. In 2012, mathematics and physical sciences received tutoring but this time it was only for a few learners who had performed badly in these subjects in grade 11. This external support was substantive when it targeted all grade 12 learners regardless of how they had performed in grade 11, but less so when the focus was reduced to a small number in 2012.

Internal support for grade 12 learner attainment

The SMT decided to find help from NGOs that provided extra classes in mathematics and physical sciences. An invitation was sent to the school in January 2011 by one NGO for the school to send learners in grade 10, 11 and 12 for extra classes. Ten from each grade were selected and received Saturday classes in mathematics and physical sciences.

Another NGO was invited by the SMT and SGB to provide extra-classes in mathematics twice a week for grade 11 and 12s. This NGO provided these classes for a fee. Parents were invited to support the project and provide funding for their children. The NGO was very reasonable as it charged only R5 per learner, per hour. The interventions were very helpful but not all learners benefited from the programs as many were excluded due to non-selection or lack of funds. In cases where parents could not pay the R5 per hour for their children, the school initially subsidized the learner but the school could not sustain the payments.

This internal support for grade 12 learner attainment may initially have been a response to external performance. They were substantive in so far as learners who attended the classes did benefit.

Curriculum delivery support

A curriculum is the planned interaction of pupils with instructional content, materials, resources and processes for evaluating the attainment of educational objectives (Franklin 1918: 21).

Curriculum delivery support aims to ensure that the skills, performances, attitudes and values that learners are expected to acquire are acquired. Curriculum support refers to all the support intended to ensure quality delivery of curriculum in the classroom. Part of the strategies used for curriculum delivery was the Integrated Quality Management Systems (IQMS) process.

External curriculum delivery support

The district office provides curriculum support through monitoring compliance with curriculum policies and learning programs of the Department of Education. The support provided is usually at the beginning of the year through standardization meetings. In these meetings, which are organized in terms of subjects, teachers are provided with a specification of the curriculum to be covered and the dates on which that curriculum is to be covered and assessed according to the pace-setter. In these meetings, standards are set for all schools and monitoring by curriculum advisors is also discussed.

It was generally expected that the district office would provide curriculum delivery support. However the principal and deputy principal regarded most forms of curriculum delivery support offered by the district office as ineffective, for the following reasons:

- a) The support interventions offered by the district office tended to be uniform across schools and not adapted to the specific needs of each school. I will illustrate this point with reference to the tutoring program provided by the district office to grade 12 learners. The tutoring program runs after school, over the weekends and holidays. The tutors are teachers from schools where learners performed relatively better in specific subjects. This support is provided based on the statistic relating to learner performance in the previous year at the specific school. This means that if learners in the 2010 accounting grade 12 class attained a 40% pass, then the 2011 grade 12 learners will be provided with accounting tutors. This is off the mark since the two classes are not the same and their challenges are different. Furthermore, the teachers who taught these subjects were not given guidance with regard to how to sustain improved results.

The support was not targeted since there were shifts in the strength of teachers teaching a specific subject and also in the cognitive strength of learners from one year to the next. The mechanistic provision of support made it much more difficult to target problem areas.

- b) The time allocated to curriculum training was perceived by school leadership as being inadequate and badly timed. The deputy principal said in an interview, *“Curriculum workshops do happen, but only once when the curriculum is introduced, for an example CAPS. They never do training; it is a very scarce commodity. During the year it is only standardization, not training.”*

The school invited curriculum advisors to work with teachers and very few responded positively to the request. The principal said in an interview, *“Whenever we require that curriculum advisors teach specific challenging topics they are not always available.”*

- c) Some forms of curricular support that had been regarded as useful had been discontinued. The provision of examination question papers for school based assessments by the district office was discontinued. The curriculum advisors had previously set question papers that prepared learners for the final examination and ensured the same standard across all schools. The papers also displayed the standards at which school based assessments were supposed to be pitched.

The discontinued provision of assessment tasks by the curriculum, the sparse curriculum training and the failure of curriculum advisors to help teachers with challenging topics made the support either absent, withdrawn or discontinued, with non-substantive effects.

Internal curriculum delivery support

In general, school leadership was disappointed with the provision of external curriculum delivery support. There were a number of instances where school leadership attempted to provide such support internally. A number of these initiatives were perceived within the school to have a positive impact, but others were not as effective:

Firstly, the SMT provided support by monitoring pedagogic practices. The deputy principal collected learners' books once a month to look at the quantity and quality of work covered in the classroom and compliance with the pace-setter. The subject heads and heads of department moderated assessment tasks before, during and after administering an assessment. The IQMS required that a teacher be observed in the classroom by the Designated Support Group (DSG) at least once in a year. The DSG³ and the teacher agree on what is to be observed and what the teacher's needs are, taking the context into consideration. A tick-box is used to score the teacher's performance. The school arranged for quarterly IQMS class visits by the Designated Support Group (DSG) instead of one as required by legislation, to support teachers with pedagogy and strategies for content presentation.

These class-visits in which teachers were observed worked well for higher grades but were not well managed in the lower grades. In lesson observation, the criteria allowed for context to be considered in lesson delivery. As the grade 9 classes were fairly large; teachers were often awarded marks for context and good classroom management. The actual quality of teaching received less attention, and the process was more forgiving of weaknesses in this regard than in grade 12. In grade 11 and 12 the classes were smaller, and the class visits achieved the set desirable goals, with a greater focus on the quality of teaching.

With regard to curriculum support delivery internally, the principal said in an interview:

³ The DSG is comprised of the HOD and a peer who can support the teacher professionally.

We have our own interventions, where heads of department check if teachers have completed the syllabus, the volume of the work covered and what extra support can be given to them. The ILST deals with referrals for learners with barriers to learning and other myriad of challenges from medical to social. We also invite motivational speakers to give pep-talk, share experiences which in most cases speaks to the problems that the learners are confronting and which act as barriers to their attainment.

She continued to say,

The deputy principals are the ones driving these initiatives, both of them assist in drafting programs and time-tables. Besides that, we have another curriculum support, where the deputy principal responsible for curriculum checks teachers' books monthly. The deputy principal looks at the quality and quantity of the work covered. He does thorough results analysis to ascertain central tendency so as to inform future practice.

Secondly, the school staff as a whole met to discuss curricular support strategies. These meetings were attended by all teachers. In these meetings teachers would raise questions about the moderation process and the differences in pass requirements across the subjects. The discussions were around how the SMT could be assisted in ensuring compliance in submissions, meeting moderation targets, necessary curriculum workshops, increasing average subject percentage passes and the cognitive demand of assessments.

Thirdly, quarterly curriculum intervention strategy meetings were introduced. At these meetings good and bad pedagogic practices were discussed and improvement strategies were suggested. For example: the deputy principal had this to say at one of the curriculum intervention strategy meetings:

Good practice is evident in the history and languages departments, learners are trained to work extensively with sources as from grade 8. I am also happy to see that notes are well managed across the learning areas including mathematics, learner-books are marked and signed. I am also realizing that the general trend in mathematics is that the notes are recorded before any class-work; this is good, this means that all work follows sequentially. I am however concerned that there is very

little evidence of solutions in most learner-books, that will be my focus in the next round of moderation.

The responses to internal curriculum support in terms of monitoring pedagogy, assessment and general practice were substantive: The focus was not on compliance for the sake of outcomes but to satisfy set goals in relation to learning and teaching. Teachers began to improve their pedagogy as the process was not punitive but supportive. These improvements can however still be seen as an indirect response to performance demands made by the district officials on school leaders to ensure that learner attainment in mathematics improved as well as the general grade 12 results.

There were however also non-substantive responses that mirrored practices described above in relation to standardized testing in grade 9. In some cases teachers used past question papers to drill learners on how to respond to questions in an exam rather than teaching the necessary content.

Another non-substantive response as discussed before was the preclusion of learners who achieved less than 50% in mathematics at grade 9 from taking mathematics as a subject in grade 10. These learners were encouraged to take mathematical literacy which also meant they could not take physical sciences. This strategy was aimed at improving mathematics results in the year when these learners reached grade 12.

Teacher development support

Teacher development is provided externally by the district and the province through the Cape Teaching and Leadership Institute (CTLI). It is also provided internally by the SMT and Institution Learner Support Team (ILST). The internal development programs are agreed upon unanimously at the strategic planning sessions. The external development programs are informed by the Personal Development Plan (PDP) which then informs the School Improvement Plan (SIP) which is part of the IQMS process. Individual teachers record, in their personal professional portfolio, areas in which they'd like to improve.

External teacher development support

The CTLI provides developmental training programmes for teachers in many areas. There are programmes for management, curriculum, information technology (IT) and also conferences

where people share good practice. These programmes are hands on in terms of what teachers and managers need to do at schools to achieve better output of results in all spheres. These programmes run over a period of time ranging from a full day to ten days. They are facilitated by specialists from the district offices across the province, the head office and consultants depending on the topic(s) to be covered. Responses to these programs varied according to perceptions of how they met the needs of various teachers and schools, as the following examples illustrate.

- In 2011 accounting and life sciences teachers attended workshops at the CTLI by invitation. On their return they reported that the workshops boosted their confidence in the subject delivery and provided them with new pedagogies to approach topics.
- In an informal discussion I had with teacher P, she explained how she needed development in several areas in class management and that this support was not forthcoming. She explained how she had used the PGP to highlight these areas in which she needed development and that she had not received any support over the past three years.
- In another informal discussion, the science teacher indicated that he was happy with the variety of workshops provided by the CTLI but complained that not enough programmes targeted physical sciences as a subject. He also explained that the programmes offered for physical sciences tended not to focus on specific needs. He explained how physics was neglected and chemistry was given more attention.
- In 2011 three SMT members were invited to the CTLI for a workshop on school management and leadership. The workshop was not so much on the theory of management and leadership but on the practical management of processes in the office and execution of duties. The three SMT members were given an assignment to complete at school in which they were expected to put the learned information to practice and then submit after three months.
- A principals' conference is organized semesterly by the CTLI. In this conference principals share good practice and solutions to common problems. The organizers brought a retired successful principal to share nuggets of wisdom and also experiences when they were at the helm of power. It is in such conferences that principals agree on

common approaches and also strategize on how to tackle challenges ranging from the curriculum to management.

While the CTLI runs many programs for the province, the district office organized very few events at district level. The district office seldom organizes workshops except when a new policy is enacted. In 2010 a workshop was organized by the district office to deal with attendance register management. In this workshop, managers were trained to follow new rules and also to support teachers in classroom management.

Clearly, there is an attempt by the CTLI and the district office to address the needs of teachers inside and outside of the classroom. However, there is often a disjuncture between the workshops offered and the needs of the school. This misalignment may be due to the number of schools catered for which have different challenges or perhaps the tick-box nature of the SIP which informs the development of the programs. In general, the CTLI programmes were perceived to be more helpful, in content and scope, than were the district office events.

Internal teacher development support

Based on a programme developed within the strategic planning process, the school hosted one teacher development training programme per term in 2011 and 2012. The developmental programmes were both curriculum and management related. In 2011, the school organized training on the CAPS curriculum. This workshop had not been presented at provincial or district level yet. The program was organized by the deputy principal responsible for teacher development in consultation with the SMT who acted as the senior members of the designated support group (DSG). The workshops covered the general principles of the CAPS, history, application and also the philosophy that informed it. The workshop also covered the difference between the NCS and CAPS and how these differences would play out in the execution of curriculum in the classroom. Teacher P said,

I am happy that the school organized this workshop, now I will build on this knowledge when the district organizes its own workshop.

The response to teacher development support offered internally was substantive in that this was perceived to be targeted to the particular needs in the school and sensitive to context.

Teacher morale support

Teachers at the school under study are demoralized. The conditions under which they practice contribute to their demoralization. The school is a high school but operates in a primary school building. Teacher S commented,

This building is limiting in terms of what one can do to expose learners to new possibilities in the content and the use of alternative methods that need the library and the computer laboratory.

The science laboratory was originally built for primary school use. The school has no hall and no library. These challenges are not peculiar to this one school as there are many others that face the same challenges, but the facilities in this particular school are even less adequate as it is a secondary school housed in a primary school building.

The lack of parental support is another factor that affects teacher morale, as the third leg of a successful schooling system is lacking. There is never a time when 100% of the parents attend a meeting called by the school to tackle issues of mutual interest and to report on learner progress. The lack of parental support is also evident in the lack of monitoring of learner books at home and general support in the home-based school work. Very seldom do teachers commend parents who show genuine interest in their children's work. The reasons for the lack of parental support range from the presence of child-headed households to instances where parents are absent, for example because they are domestic servants who only visit their home and children over the weekend. These parents will find ways of coming to the school on their off days but more often than not their interventions will be late and ineffective as a result.

The area in which the school is situated is rife with numerous social ills, including criminal activities and social depravations. Unfortunately these problems find their way into the classroom, making it difficult and sometimes impossible to produce a quality learning and teaching environment. The lack of human resource to deal with these problems as they develop and mature is a source of decreasing teacher morale. Challenges such as the gang wars that affect teaching and learning affect the emotional balance of all involved and demoralize teachers in particular. Parents' decisions to register or de-register their children at

the school are based not only on how the school performs academically but also on the safety of their children at the school.

This problem is exacerbated by the fact that the government policies expect schools to be run by School Governing Bodies (S.G.Bs) and yet not many parents are in a position to carry out the responsibilities of the body efficiently

Some of the demoralization stems from discontinued or absent support from the department of education, such as the unavailability of school based social workers and psychologists to deal with the challenges within their areas of expertise. Teachers are often expected to stand in for these professionals without adequate training. The social worker and psychologist based at the district office often deal with over 20 schools and are not able to concentrate and deal with issues effectively on this scale.

External morale building support

A number of morale building activities and events are offered externally by the district office. The district director visited the school at least once per year in 2011 and 2012 to encourage and to congratulate the school and the teachers in particular. The meetings usually lasted from ten to thirty minutes. The director read the learner performance statistics and compared the current year to the previous year and always found something to commend, from increased learners registered for the grade 12 examination to improved results and specific subjects performances. The director then spoke about contextual factors and how the district would find ways to support the school to relieve the teachers from the impending challenges and issues that undermined morale.

The CTM came twice a year in 2011 and 2012 to the school to encourage teachers and to support them in motivating grade 9 and 12 learners. In motivating teachers, the CTM found time to speak to certain individuals who made a difference at the school and to the teachers in general about learner attainment and also to offer support to the school where possible. The CTM then spoke to the grade 9 and 12 learners and motivated them to achieve better results. The CTM was always accompanied by the Institutional Management and Governance (IMG) official in these visits, who also found time to encourage the SMT and to speak to parents about school support and the role the parents had to play to make the school better and help learners to improve their results. After one such event a parent commented, "*We all have a*

role to play to make our schools better places”, which suggested that the message was effectively conveyed, at least to this parent.

Internal morale building support

Internally teacher morale support is provided by the Institution-based Learner Support Team (ILST) and the SMT. The ILST organized local workshops for teachers in areas such as anger-management and emotional-intelligence. These workshops helped teachers in dealing with the difficult conditions they faced at work. The ILST also supported teachers with learners with barriers to learning. The ILST registered learners for alternative assessment which allowed learners to be given extra-time during assessments and for their spelling errors to be overlooked during examinations. This helped lift the morale of teachers who felt that certain learners would not make it based on their writing pace or spelling errors.

The SMT organized the teacher of the year awards ceremony in which the best teacher was recognized after being voted for by the general staff at large in 2011 and 2012. The principal organized prayer session by local pastors to pray for both the staff and learners respectively. In these prayer session teachers were motivated by the SMT and pastors prayed for their strength. The same pastors then later prayed for the learners and motivated them as well.

While these events were positive, much more could be done both internally and externally to boost the morale of teachers.

Resource material support

Material resources that are routinely provided by the department of education fall into the following categories:

- Learning materials such as textbooks, workbooks, science apparatus, chemicals, charts, learning programmes, pace-setters and maps.
- Stationery such as pens, pencils, writing paper, chalk, ink-cartridges, stencil and files.
- Furniture.
- Food.
- Human resources.

External resource material support

While resources in all of the categories listed above were in general provided during the period 2011 -2012, there were frustrating inefficiencies associated with this provision. The following five examples illustrate this.

- At the end of each school year schools are expected to procure text-books for the following year and to top-up at the beginning of the year should there be any shortages. However there seems to be some kind of competition between the provision of textbooks and furniture as they both share the same budget in the norms and standards (system used by the department of education to fund schools). Textbooks are ordered and delivered on time, but sometimes the wrong textbooks are delivered which poses a problem for teachers. Another problem arises when the ordered textbook is unavailable and teachers have to make do with what they have until a solution is found. A good example is that of the unavailability of the grade 11 CAPS accounting textbook in English in 2012 and teachers had to use alternatives while they waited for it.
- In 2012 textbooks were delivered on time for the CAPS curriculum but the top-up textbooks had not been delivered by February 2012 for grade 12 learners. The top-up project is used if the number of current grade 12's increase from the previous year's order. This required teachers to find alternative ways to ensure that learners have access to textbooks either through sharing or moving a certain number from class to class for a particular lesson. The accounting teacher commented that she did not feel adequately prepared that she had to start planning for her subject in January because the textbook was unavailable.
- Study materials were limited to previous final examination question papers. The seasonal material sent by the district office were mainly previous grade 12 question papers which teachers had previously used to drive curriculum at school. Grade 12 teachers believed that their learners would not be challenged by the material. Ms. T simply remarked, "*I expected something different, not a downloaded paper from my curriculum advisor.*"
- The quality of material provided by the district's curriculum pillar was sometimes questionable. In the introduction of CAPS at grade 10 in 2012, curriculum advisors set term assessments for standardization purposes and also to provide exemplars for future reference. Some question papers were riddled with errors. The language in some question

papers was so unclear that it was impossible for learners to understand the instructions and to problem solve. A mathematical literacy teacher at one point complained that the district set memorandum was incorrect. The question that the teacher grappled with was whether the paper had been moderated before it was sent to schools. She confessed that her confidence in the curriculum advisor had been greatly shaken.

- Food is provided through the nutrition program of the department. The majority of learners benefit from the nutrition program. Learners get at least one balanced meal at school, with all the necessary nutrients. This is one provision that supports the government's plan to eradicate hunger.
- The human resource challenge far exceeds other challenges as it deals with staffing. The shortage of specialists in psychology, social work and specialists in subjects such as mathematics had a serious impact on the general grade 12 results as well as mathematics results.

Internal resource material support

While resources were provided externally, they were managed internally. Different committees were set up to manage these, for example there was a procurement committee that was responsible for orders, managing material, distributing material and safe-keeping of the material. These committees reported to the two deputy principals who in turn reported to the principal. The responses to the resource material support were substantive.

How pressure and support are communicated

The focus of this study was primarily on the content of communication, i.e. on whether the district offered support or pressure, but in the interviews there was also attention to how the recipients experienced the communication. The degree to which teachers experienced communication as either pressure or support often boiled down to the tone of communication.

Communication between the district office and the school was either written or verbal and sometimes was a combination of the two. Written texts were sent to the school in the form of circulars, memoranda and letters. Verbal messages were communicated in meetings, telephone calls, symposia and workshops. While the tone in the written communication was generally positive, executive, diplomatic, toned down and inviting, the face to face communication was often harsh, aggressive, abrasive, authoritarian and critical.

The content and tone of the communication, and the way it was perceived, was also influenced by the context. Where the communicated message demanded a response to turn results around in an environment where capacity to do so was lacking, rank, threats and sanctions were more frequently used. In an environment where capacity to improve results was abundant, rewards were more likely to be used to encourage teachers.

One example of the effect of the tone of verbal communication occurred after a meeting when the IMG said *'people should get serious about helping learners to attain good results or find alternative employment'*. Most teachers interpreted the message as meaning that if the learners failed at the end of the term, they would lose their jobs. Teacher P, who is also a mathematics teacher in grade 9, commented, *'perhaps I should teach Natural Sciences as well as it is my second major'*. This response to the message expressed desperation and a need to be removed from an area where the pressure was exerted.

In a second example, manager T received a call in which he was ordered to account for the performance of learners in the grade 12 subject that had performed badly in that particular year. The official who called on behalf of the department was abrasive and tactless in enquiring about the challenges faced by the teachers and the school leader.

Of course, the tone adopted did vary from official to official: some officials emphasised their rank when they communicated policy issues and this was interpreted as pressure by those who experienced it. Others used collaborative language and personal influence to achieve their goals.

Spillane argues that,

Teachers' evolving perceptions and understanding of accountability policies are likely to be mediated by school leaders, and how they construct district accountability policies (Spillane 2002: 731).

This sense making, on the part of school leaders and teachers, is influenced in part by the way policies are communicated and received in particular contexts. In this school, the tone used by officials as they communicated accountability reforms contributed to whether the message was perceived as an incentive or as a sanction.

The next chapter will draw out general conclusions from the analysis presented here.

Chapter 5: Conclusion

This study paints a picture of how practices generated in a broader accountability driven policy environment, aimed at ensuring improved learner attainment in general and in mathematics in particular, were experienced in one school. External measures of support and pressure generated from officials outside of the school, including the district office, were relayed and recontextualised by leadership within the school.

This chapter will review the findings emerging from the analysis in relation to a number of emergent themes.

Forms and effects of external pressure

The main vehicles for external pressure were performance demands in standardized tests and stringent monitoring of outcomes. The standardised assessments were traditionally written in grade 12. The extension of the external standardised assessment to grade 9 was a shift from the norm. This meant that the two grades at the school had to receive similar levels of resources and support which was a challenge for school leaders.

The grade 9 assessment introduced a new curricular focus. There are three basic forms of curriculum; the intended, enacted and the assessed. The national, provincial and district offices deal with both the intended and the assessed curriculum, while the school deals with the enacted and the assessed curriculum (Porter 1989). To the extent that content is similar in the intended, enacted and assessed curricula, they are said to be aligned. The ANA tests and the systematic tests did not assess what was taught in the classroom: the teachers complained about the cognitive demand of the papers, the style of assessing and the content that was assessed. The focus then changed to that of new external assessments. Consequently, the assessed curriculum was no longer aligned with the intended curriculum, and the enacted curriculum was increasingly driven by the external assessment in some grades and subjects. Furthermore, the enacted curriculum in these grades did not align with the enacted curriculum in other grades.

Stipulation in quantitative terms of expected performance levels was a performance demand in itself. The public comparative displays such as the event where the district official presented an analysis of schools' results led to the creation of an informal hierarchy of schools, where the higher performing schools formed alliances and lower performing schools

were left out. In effect, a cycle was created where better performing schools could draw stronger learners from the primary schools while those that had weaker results were less likely to attract these learners.

Forms and effects of external support

Support pertained to teacher development, curriculum delivery, resource material provision and teacher morale building.

External support for improvement of grade 12 performance included bringing in external tutors in subjects where performance had been unsatisfactory. There were also curriculum and teacher development support measures from the district offices including training workshops and the provision of examination question papers, supplemented by CTLI programmes. Support for building morale took the form of short annual motivational visits from the district director and biannual visits from the CTM accompanied by an IMG official. A range of routinely required material resources were delivered.

However, all these forms of support were perceived within the school as being inadequate in various ways: tutoring was not contextually responsive and did not contribute to capacity for improved teaching within the school. Curriculum support was scant. Morale building visits were welcome but infrequent and not extended to material interventions. Teacher development support from the CTLI was at times helpful, but that from the district less so.

With regard to material resources, there were a number of problems regarding the quantities supplied, the timing and efficiency of delivery and the quality. Particular support measures that were perceived to be useful, such as question papers that had previously been set by curriculum advisors, were withdrawn. When results improved in a particular subject, support (and pressure) was withdrawn, undermining the sustainability of the improvement. While there was considerable attention to monitoring of these results, little attention was directed towards addressing the basic conditions that precluded the learners from performing at the expected level.

Balance of external support and pressure

The demands that were made on teachers and school leaders to improve results and systems were not generally accompanied by congruent levels of support. The support that was offered was often experienced within the school as being inadequate, not sufficiently targeted to

needs and not sufficiently sensitive to context. This often resulted in strained relations between leaders and teachers in the school, and curriculum advisers. Pressure and support was experienced differently at different levels within the school. The school leadership experienced it more directly than did the teachers. Pressure was also experienced and interpreted differently depending on how the message was communicated.

Relaying support and pressure within the school

In responding to pressures to improve learner performance, the school was hamstrung by its limited material and human resources. This situation was exacerbated by the inadequacy of support staff in social work and educational psychology, and the additional burden this placed on all subject teachers.

The responses of management and teachers to pressures for achievement at grade 9 and grade 12 levels differed markedly.

The external pressure to improve results at grade 12 level was fairly general and indirect, and it was left up to the school to decide internally how to achieve this. The school leadership and teachers adopted various methods which included team teaching, relay teaching, the use of technology and systematic lesson reviews to try and improve the mathematics grade 12 results. The school leadership drew on training offered by the CTLI to strategize and improve results. The support of NGO's was also recruited. These were largely substantive responses; however there were also some negative practices and non-substantive responses.

Ultimately the grade 12 mathematics results did improve. Whereas in 2011 below 15% of learners passed mathematics in 2012 this improved to almost 50%. While the results were still not at desirable levels, the improvement was considerable. The internal strategies were more sustainable than external strategies, because the processes that generated strategies for improvement were inclusive, owned by the teachers at class level and targeted at particular needs in the specific school context.

However, at grade nine level, external interventions in the form of the introduction of the systematic tests and ANA tests were much more prescriptive and invasive. The provincial systematic tests and the ANA added more challenges to an already overburdened system. Teachers and learners in grade 9 were overwhelmed by the amount of testing that they had to go through in a three week period. The coherence of teaching and learning, and of the relation

between teaching, learning and assessment, was undermined in that these sets of tests did not relate to each other and had different goals. The tests were also not integrated into the ongoing curriculum.

The school leadership aimed to use the analysis of results for benchmarking and also to inform future practice. However, while the diagnostic analysis of grade 12 mathematics results was done to improve practice, not much was done at the grade 9 level. The response meant that practitioners focused on strategies that improved results in the subjects that were externally tested but did not improve teaching practices more generally.

The shift of practices in grade 9 in response to the standardized testing had a negative impact on school culture. The school internal practices did not counter these as strongly as desired because:

- a) Teachers were unable to individualize teaching because of large class sizes and even struggled to mark and set standards for the next lessons.
- b) The specialist teacher taught all grade 10, 11 and 12 mathematics classes but only one of the four grade 9 classes in 2012. In 2011 the mathematics specialist only taught grade 10 – 12 and none of the GET classes. This meant that the content knowledge of teachers at this level was weaker.
- c) At grade 9 level, the one class visit by the DSG required by the IQMS process tended to be more of an isolated display than an ongoing opportunity for practice development.

While there was generally more attention to the grade 12, some of the weaker teaching practices such as drilling remained evident at grade 12 level. As these practices increased at grade 9 level, in response to the standardized testing, teachers were tempted to also use maintain or adopt them in other grades.

External pressure and internal coherence

The school's response to external pressure to improve mathematics results was more substantive and effective with regards to grade 12 than grade 9. This was partly due to the school leadership's channelling and focussing energies to the grade 12s and partly about the nature of the pressures at these two levels which were different in their intensity.

The school leadership had sufficient internal coherence to develop systems and policies to mediate and channel the pressures and support to improve grade 12 results that came from the district, province and national office. The process included strategic planning and periodic evaluation of plans. Committees were used to manage programs and resources provided by the department and periodically these committees were required to report to the general staff and to show progress on targeted programs.

The SMT encouraged and gave leadership to these processes. However, limited resources and capacities within the school and great contextual difficulties at grade 9 level and the focus of pressures on results in assessments in selected subjects rather than general improvement of teaching meant that the internal coherence of the school was not strong enough to address challenges at this level.

Conclusion

In general, this study shows that the responses within the school to pressure and support to improve mathematics results were complex, uneven and layered. These external pressures did, often indirectly, contribute to improved grade 12 results. This was facilitated by a degree of coherence, effective and purposeful strategy aligned with substantive goals within the school. Responses to pressure were generally more substantive where school leadership was able to take ownership of strategies, adapt them to needs within the school context and bring teachers into the process.

However, these pressures also arguable prompted undesirable pedagogic practices especially at grade 9 level, where interventions were experienced as being disruptive rather than helpful. Contextual difficulties and internal responses such as larger class sizes in grade 9 and inadequate numbers of specialized teachers also contributed to undermine practices more at grade 9 level than at grade 12.

The support offered was not adequately aligned to the demands and this limited the extent to which leadership could reach down to the lower grades, and the degree to which improvements could be sustained.

With regard to broader debates about the effects of accountability measures, the study shows that such measures are only productive where the school is able to muster adequate internal

coherence and capacity to generate substantive responses. Even where such coherent and substantive responses emerge, they do not necessarily reach the school as a whole but are instead targeted at areas (such as particular grade levels or subjects) which are both most externally visible and most amenable to change. Other areas of practice may be neglected or even undermined in the process.

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